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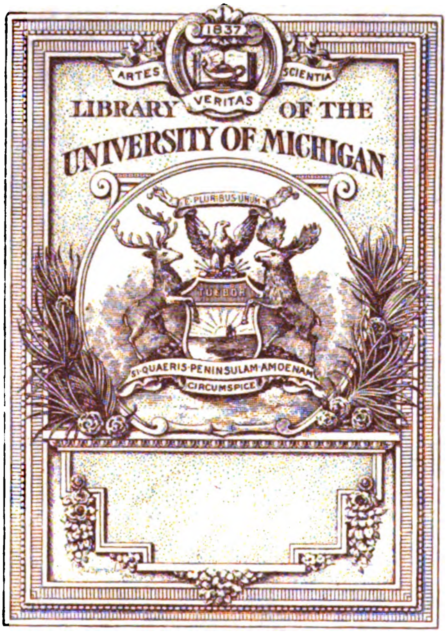
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Original Articles.

CHOREA—TREATMENT OF, BY SALICYLATE OF SODA.

By W. F. McNUTT, M.D., Professor Practical Medicine, Univ. of California.

It is not necessary in this connection to discuss the etiology, pathology or symptoms of chorea. It is only for the sake of reporting the marvelous curative effects of salicylate of soda in this particular case that it is detailed. In the text-books on practice and in the special works on diseases of the nervous system, there seems to be no mention made of the salicylate in the treatment of chorea, the consensus of opinion being that arsenic is the only medicine that has a curative effect.

December 7th, 1895, Mr. S. called on me in the evening saying that he had just moved into the city with his family and that one of his boys was very bad with St. Vitus's dance; that he had been sick for two years and that the medicine he had had from their physician had not relieved him; that he had not slept much for several nights on account of the constant jerking; that the mother was alarmed that the child was losing his mind, as he talked at random and had night terrors, that he was no longer able to walk and had to be kept in bed. I gave the father a prescription for bromide of potass., and would see the child in the morning. On visiting the child on the 8th I found an aggravated case of Sydenham's chorea. Up to a few days before the child had been able to walk, though very irregularly and would sometimes fall. The movements had become general; the child could no longer feed itself or leave its bed. He was quite anæmic, his speech was affected with pronounced psychical disturbance. He was a bright boy seven years old, had never been very robust, but the mother said his teacher told her he was very bright in school, and with the characteristic want of sense of most teachers, the child had been encouraged and stimulated to over do, because he was bright and quick in his studies. The parents were both strong, with a history of a rheumatic diathesis, and a brother of the boy 15 years old was just recovering from a severe attack of inflammatory rheumatism. After enjoining rest, separation from the noise of the other children, fresh air, sponge baths and light diet, the bromide was continued, doubling the dose at bedtime with the addition of five grains of chloral, and arsenic pellets ordered.

This treatment was continued until the 13th as the child had not improved, and the fact that the older brother had an attack of rheumatism, also the rheumatic diathesis, and the child was complaining of pain in his ankle, I changed the treatment, salicylate of soda, ʒii; syr. gaultherm, ℥i; aqu. gaultherm ad. ℥ii; 20 drops every hour for six hours, and 30 drops every two hours thereafter. On the 14th I did not see the child; on the 15th his mother met me in the hall saying that he was almost well, that he commenced to get well after he had taken a few doses of the last medicine. The improvement in the forty-eight hours was certainly marvelous, with the exception of some jerking of the right shoulder and an occasional twitching of the facial muscles, the choreic symptoms had ceased. The treatment was continued and the child was allowed to sit up in bed on the 20th.

The only reference that I have seen to the use of the salicylates in the treatment of chorea is in Sachs' "Nervous Diseases of Children," who says "Weir Mitchell some time ago proposed the use of the salicylates." One would infer that Weir Mitchell could not have found the salicylates satisfactory. It can hardly be possible that this one case is a great exception, there are probably many other cases of chorea that would as readily and rapidly improve under the use of salicylates.

Chronic Laryngitis.

℞	Ol. pini sylvest	gii. vv.
	G. cassiæ	gtt. iij.
	Magnes. carb. levis	grains xx.
	Aquæ	ounces j.

M. et fiat vapor.

Sig.: A teaspoonful to a pint of water at 140°F. for each inhalation.—*Times and Register.*

MEDICAL EXAMINING BOARDS TO CONFER DEGREES.

A Suggestion that National Legislation Provide for a Medical Examining Board to Confer a Special Degree in Medicine and Surgery (this Board to be Principally Composed of and Under Control of the Superior Officers of the Medical Staff of the U. S. Army and Navy), and that thereafter the States, through their Medical Licensing Boards shall License only upon this Degree.

By C. E. FARNUM, M. D.,

Demonstrator of Anatomy and Adjunct to the Chair of Anatomy, Cooper Medical College, San Francisco, Cal.

(Read before the San Francisco County Medical Society, Nov. 12th, 1895.)

That there is a plethora of medical colleges and of medical students and practitioners in the United States, is so well known that it is unnecessary to make the assertion in this paper. That this condition does not exist in countries in which governmental restriction is exercised over the examining and licensing of physicians and surgeons is clearly shown by statistics giving the relative number of medical colleges, students and practitioners in proportion to population in the several countries of the world.

From an editorial published in the *Journal of the American Medical Association*, dated March 24th, 1894, it is said of the number of students attending the 136 medical colleges in the United States (109 regular medical colleges, 19 homœopathic and 8 eclectic): "At the sessions of 1885 the total attendance was 10,891—9,245 regular, 1,032 homœopathic, 614 eclectic. During the sessions of 1893, the attendance was 18,910—16,759 regular, 1,410 homœopathic, 741 eclectic. These figures show gains in eight years of 73.6 per cent in the total attendance—81.2 per cent for the regular students, 30.6 per cent for the homœopathic, 20.6 per cent for the eclectics—an average increase of 9.2 per cent during the period. The average increase of population during the same period was less than 2.5 per cent. So that, instead of being a diminution of students of medicine in relation to population, there is a relative increase nearly four times greater than that of population. As a matter of practical interest to the profession it may be noted that there is an average increment of nearly 6,000 new home-made physicians every year, and that while the population increased 24.8 per cent during the decade 1881 to 1890, the number of newly graduated physicians increased 50 per cent during the same period; last year, 1893, the increase was a trifle over 8 per cent."

From statistics collected by F. W. Reilly, M. D., making interesting comparisons of the number of students attending medical colleges in the United Kingdom, France, Germany and the United States and Canada, and published in the same journal in the issue of January 12th, 1895, I quote the following: "United Kingdom (Great Britain and Ireland), 8,696 total registered medical students between 1889 and 1893; for the year 1893, based on yearly accretions, 7,000; population, 37,000,000. France, total number of medical students inscribed on the books of the Paris Faculty of Medicine for 1894, 5,144; population, 40,000,000. Germany, total number medical students registered for 1894, 8,684; population, 50,000,000. United States and Canada, total number medical students in attendance at sessions of 1894, 20,800; population, 70,000,000. Proportions: In the United Kingdom, 1 medical student to 5,286 of population; in France, 1 to 7,776 of population; in Germany, 1 to 5,757 of population; in the United States and Canada, 1 to 3,365 of population."

After reading these statistics we doubtless agree with the editor of that journal when in an issue of December 29th, 1894, he says concerning the increasing student classes: "Congress may put tariffs up or down, or abolish them entirely, may threaten currency legislation or railroad pooling bills, or any other device for or against the prosperity of the nation, but here is one American infant industry that thrives apace and asks for no protection. What the struggling practitioner in the already overcrowded ranks thinks of it belongs to another category."

A government medical board, upon whose examination alone can licenses to practice be granted, is perhaps the only means by which in the United States this increasing plethora of medical colleges and graduates can be relieved. It is only through national legislation that the medical colleges in the United States, or in fact in any other country, can be forced to adopt a uniformly high standard of medical education. Such a standard will certainly not be attained by the ununited and non-cooperative methods now pursued by the several medical schools of this country.

It cannot be expected that Congress will ever take from the several States of the Union the right or power to regulate the licensing of physicians and surgeons; but national legislation can provide for a government medical and surgical examining board that could examine all applicants, and to those who pass the examination confer a special degree with some proper title, such as "Fellow in Medicine and Surgery, United States of America." In order to maintain a high standard of requirements for passing this examination and keep this examining body free from political influences, a controlling majority of the members of this board should be selected from the medical staff of the United States Army and Navy. A degree from this board should be acccepted as sufficient evidence of qualification or fitness for admission to medical position in the Army or Navy. For the convenience of applicants in the several States, this examining board could periodically hold meetings in each State or district of the Union.

This government board having been formed for the purpose of examining applicants as to their qualification to practice medicine and surgery and for the purpose of conferring a degree or giving a governmental recognition of that qualification, the several States of the Union would then have a uniform standard upon which they could license physicians to practice, and each State could through its legislature provide that any person not already licensed to practice medicine and surgery in that State must first present a degree from the national board of examiners before he can obtain a license, the applicant's license then to be granted regardless of what medical college he has ever attended, or whether he has or has not ever attended any medical college. By this plan the granting and the revocation of licenses to practice would still be reserved to each State, the Government standard of qualification being the only one upon which licenses would be granted. With such a national examining board in existence, but a short period of time would elapse before all States and territories would license only upon certificates of qualification issued by this board or else permit to practice only those who could register a degree from this board.

In examining the last report of the secretary of the Illinois State Board of Health, I ascertain that in only sixteen out of forty-nine States and territories in the United States is an examination for a license required of all applicants. The examining boards in these States are appointed by the Governor or a local board of health, or elected by a county or State medical society; in one State, Texas, being appointed by judges of district courts. These sixteen States represent but a small proportion of the population of the United States. They are Alabama, Arkansas, Florida, Indian Territory (Cherokee Nation), Maryland, Minnesota, Mississippi, New Jersey, North Carolina, North Dakota, Pennsylvania, South Dakota, Texas, Utah, New York, Virginia and Washington. In the remaining thirty-three

States, including the District of Columbia as one, the legal requirements for practice are either none whatever or a license granted upon some diploma, a registration of some diploma, or, in a few States, an examination in the absence of a diploma. At the present time, any licentiate in one State in the Union moving to one of the sixteen States that now license only upon examination, would be put to the inconvenience of passing an examination in each one of these States in which he may locate, an experience which could be avoided should all States license upon a degree or certificate of qualification issued by a national examining board.

No "pathy" should be recognized in the personnel of this board. Since all who practice medicine and surgery, homœopathic and eclectics included, proclaim that they have studied and are familiar with regular medicine and use it in their practice, a degree from this examining board would be simply verification of their claims. If they want a special degree as evidence of knowledge in their preferred "pathy," their own college can furnish them with that. This board should recognize neither "pathies" nor diplomas, nor any medical schools or teaching bodies. Homœopathists and eclectics, familiarizing themselves in therapeutics sufficiently to pass the examination before this board, certainly should be able to well understand what they term "comparative therapeutics" and perhaps make such use of their own therapeutical methods as would be in better conformity to their theory and more satisfactory to themselves.

This national board of examiners should be permitted to make its own rules and standard of requirements and exercise its own judgment as to how many and what subjects all the candidates shall be examined upon, the only restriction being that a degree or certificate of qualification shall be issued only upon examination. This would prevent interference through court processes with the proper and satisfactory performance of its duties.

What is suggested in the foregoing may be briefly stated as follows:

First, that national legislation provide that a national board, principally composed and under control of the superior officers of the medical staff of the United States Army and Navy, shall examine all applicants as to their qualifications to practice medicine and surgery, and, to anyone who successfully passes the examination, shall issue a certificate or degree as evidence of such qualification; second, that thereafter each State legislature, at its option, may provide that its medical licensing board shall accept as evidence of proper medical qualification upon which to issue licenses only the degrees or certificates of qualification issued by the national examining board. The national examining board and the State licensing boards would be entirely independent of one another, it being optional with any candidate to undergo an examination by the national board and optional with each State to adopt or accept as evidence of proper qualification to practice medicine and surgery, and upon which to issue a license to practice, the degree or certificate of the national board of examiners, or, as at present, a degree from a local or foreign college or a certificate from a State examining board. However, should any State or States, or all the States adopt the national standard of qualification for practice and issue licenses only upon certificates or degrees from this national examining board, instead of then being optional with the candidate to appear before the national examining board, it will by the State be made necessary that he do this in order to obtain a license. In other words, the States would still reserve to themselves the licensing function and the right of revocation, but would adopt and accept only the national standard of qualification upon which to grant licenses.

The principal results that would follow from licensing physicians and surgeons upon no other evidence or certificate of qualification than a degree conferred by a national examining board under control of the superior officers of the medical staff of the United States Army and Navy, would be as follows:

1st. The examining body will not be under the control of politics or of medical colleges or of medical societies in which members of college faculties have a controlling influence.

2nd. A better and more uniform standard of qualification would be required. The granting of licenses upon diplomas from all kinds of colleges, both local and foreign, or upon examinations by boards of examiners elected by State and county medical societies or appointed by governors, as is done at present, certainly does not give as good assurance of proper qualification as would a certificate based upon examination by the superior officers of medical staff of the United States Army and Navy. Who does not know that a college diploma, whether American or foreign, is not infrequently issued to those who are much more poorly qualified than is the average practitioner and to those whose qualifications would be inferior to one who had successfully passed examination by the medical staff of the United States Army and Navy? To the medical profession in foreign countries it certainly must seem peculiar that those who have degrees from European colleges can in this country be licensed upon degrees or diplomas that in the countries in which they are issued would have no legal recognition or would not be recognized by a licensing board or accepted as evidence of proper qualification for practice. It is a well-known fact that in many of the best foreign medical colleges, especially in Germany, attendance upon lectures or college curriculum is not obligatory, and that in applying for the degree Doctor of Medicine simply the passing of the examination is required, no other evidence whatever of previous study or attendance upon college curriculum being required. In other words, any person passing the examination in one of the universities can, without ever having studied or attended upon a college curriculum, get the degree of Doctor of Medicine, a foreign diploma, upon which most of the licensing boards in this country will now grant him a license to practice medicine and surgery, while in all American colleges an attendance upon the full college curriculum, extending over a period of four years in the best colleges, is required before the student can present himself for a degree upon which a license will be granted. So great is the American demand for a foreign degree or diploma rather than for a medical education obtained in a foreign college that it is very doubtful whether this custom of issuing degrees or diplomas upon examination alone will soon be corrected in the foreign universities who, while maintaining a high standard of actual college work, are equally as anxious to supply the American demand. If a degree in medicine, even from the best universities, is with good reason discredited by the German government and licensing boards, and also by some other foreign governments and licensing boards, there certainly should be the same reason for discrediting in this country that degree to the extent of also refusing to accept it as sufficient evidence of qualification upon which to issue a license.

3rd. The standard of requirements for graduation from medical colleges in this country, and perhaps also in European countries, would be increased as a consequence of provisions for a government examining board. In order to acquire such qualifications as would be required by this examining board and avoid the publicity of failure before a government board, students would attend only such medical colleges as give the best instruction and opportunities for study and have the highest standard of requirements for graduation.

4th. The number of medical schools in the United States would greatly decrease, since students expecting to appear before this national examining board will not attend the colleges that do not give superior instruction and superior facilities for study.

5th. Merited aid will be given to worthy medical schools that now require a high standard of education and desire to still higher advance the standard, since competition from low standard colleges will be eliminated. For this reason legislation favoring such a national board of examiners as is here suggested will doubtless be opposed by the low-standard college men.

6th. The number of students beginning the study of medicine and of graduates engaging in its practice after a short period of study and without proper qualifications would be greatly reduced, a higher and more uniform standard having in this an immediate effect.

7th. This national standard of qualification would effect in many cities the consolidation of several medical schools now existing independently and endeavoring to outbid one another through a low standard of requirements for graduation, "not lived up to" but represented ostensibly to the public as a high standard.

8th. It would make the practice of medicine and surgery more remunerative by lessening the number engaging in its study and practice, consequently the number of medical colleges and the number of free clinics that have the medical colleges as an accepted excuse for their existence.

9th. General recognition of the necessity for a high standard of medical education and an enforcement of such requirements would doubtless induce some of the best medical schools to be changed to post-graduate colleges, fortunately emphasizing the fact that what we now need are more post-graduate schools and a smaller number of medical-schools for undergraduates.

For the benefit of colleges desiring to give proof of the claim that their professors are qualified as teachers, and, furthermore, that the graduates of all sorts of American colleges (regular, homœopathic and eclectic) should not, at present, have the same standing or recognition when they enter European colleges, it might be well for national legislation to further provide that any candidate having first passed the general examination or possessing a license from any State may, at any time, upon passing a special examination in any subject or department in medicine or surgery or in sciences cognate thereto (as anatomy, physiology, chemistry, bacteriology, pathology, general surgery, etc.) obtain another degree or certificate of proficiency showing that he is qualified to teach or become a professor in that subject or department of science. The students who enter college to study medicine and surgery and the public who employ them as graduates and practitioners educated in these colleges are certainly entitled to that much assurance or proof of proper qualification on the part of medical instructors, and the faculty of any medical college that actually desires to advance the standard of medical education and the standing of the college itself should certainly hail with delight any plan by which to separate among medical colleges the chaff from the wheat, by which to prove that what is proclaimed in college catalogues and at commencements from the rostrum about thorough instruction is not mere bombast and advertisement.

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ECLAMPSIA AND COCAINE.

By M. A. SOUTHWORTH, A. M., M. D.

(Read before the Medical Society of Santa Clara County, Cal., Dec. 10, 1895.

Eclampsia is so pronounced, and often unheralded, that all should have fixed ideas and plans for its prompt and energetic treatment. By the bed-side it allows no time for mature consideration. Its ætiology and pathology are all unsettled. The books run over with conflicting theories; and its treatment is but the accumulation of clinical experience. Nevertheless, a conception of its ætiology and pathology is essential to its rational treatment. Let us ignore *all* authorities, and, from our own experience, first see what eclampsia is not.

Firstly; it is not uræmia, nor from uræmic intoxication. The edema, brain symptoms, etc., present in both conditions, are but incidents, and often eclampsia does not have them; and albuminuria, *whenever* we find it, is only a symptom; and is not *invariably* present in eclampsia. About one pregnant woman in four has, at some time, more or less albuminuria; while eclampsia is a rare condition, occurring but once in about 400 pregnancies.

Nor is it uræmemia; for in cholera morbus, and especially in Asiatic cholera, we have the most complete illustrations of the effects of the retention of all toxic urinary elements; but, as in uræmia, we have no eclampsic convulsions nor other constant eclampsic symptoms. The spasms of cholera are not convulsions.

There is no "cerebral eclampsia," as taught by Cohen of Hamburg and others; the brain lesions sometimes found are secondary, from congestion and other conditions. Other theories of the ætiology and pathology of eclampsia are too numerous to be considered here, and may generally be relegated to the wrecks of the past.

In this confusion we may well appeal to the court of last resort, our own knowledge and clinical experience; a tribunal often above theorists and bookmen. Eclampsia has no *constant* post mortem lesion; nothing *invariably* in the kidneys, the cord, the medulla, or the brain; and especially nothing in the corpora quadrigemina, the recognized centers for convulsions.

Eclampsia is not an entity; it is not properly a disease. It is the culmination of certain conditions; with one constant exciting cause. Evidently there are predisposing and exciting causes. Is it not plain that the great, overshadowing, predisposing cause is the retention within the body, not necessarily alone of urea, but of the products of metabolism and decomposition, especially from the fetus? As the overloaded kidneys are important emunctories, we thus often find lesions there; not, be it understood, as an exciting, but as a predisposing cause.

These various toxines, retained in the circulation, irritate the motive nerve centers, and, like certain elements in normal urine, predispose to convulsions; and thus the conditions are such that some localized irritation becomes an exciting cause, and, like a spark to powder, precipitates the explosion.

Eclampsia is unknown save in the puerperal state; and where the uterus is promptly emptied 90 per cent of the cases recover; and a large majority of cases occur during labor. Therefore it may be presumed that the immediate exciting cause of the convulsions is in the uterus, and, because of their greater blood and nerve supply, in the cervix and os. Doubtless members of this Society have excited the convulsions by even gentle efforts to dilate the os, and in two cases in my later experience I repeatedly promptly brought on convulsions by digital dilatation.

The treatment of eclampsia is as varied as ideas of its ætiology, and here we must again go to the court of last resort, viz., clinical experience.

Before the child is viable the weight of evidence now seems to be in favor of promptly emptying the uterus; but much can be said against this course, and the subject is too lengthy for consideration here. At or near term its propriety is now unquestioned, as are certain general plans of treatment.

Aconite, veratrium, and pilocarpine may be discarded as bad substitutes for bleeding. Chloroform still holds its place for emergencies, but as a palliative; for while it will stop the convulsions it will not prevent their return without continual and thus objectionable use.

The expediency of prompt bleeding, in the plethoric, and for effect rather than quantity, where not counterindicated by previous loss of blood; and large doses of chloral hydrate, by the stomach or enemata, may be considered as clinically established.

As prophylactics the milk diet, proper regimen and symptomatic treatment are classical.

This brief summary of eclampsia is doubtless familiar to all of you. It is but a prelude to suggestions that have had no clinical test, but now seem to demand theoretical consideration.

Since a fellow of this Society, about eight months ago, read an article about the local effects of cocaine on an abnormally rigid and sensitive os during labor, we have had, especially in English journals, confirmatory reports on the same subject; and the subsequent experience of the author referred to, and other fellows of this Society, justify the assumption that the applicatand of cocaine will, during labor, soften and dilate, or make dilatable, the most rigid cervix and os.

This is a new departure in obstetrics, and, so far as I know, *originated in this Society.*

The predisposing causes of eclampsia we have considered. I hold that before and during labor the essential and exciting cause is pressure on the abnormally sensitive and rigid cervix and os, and *after* labor an aggravation of accumulated irritations by lacerations and contusions. Why else should we have such a great preponderance of attacks during the second and third stages of labor, or such pronounced benefit from emptying the uterus, or the excitation of convulsions by even digital dilatation, or, occasionally, the marvelous effects of morphine hypodermically.

We all know the anæsthetic effects of cocaine, and the dangers of a proper use of the pure alkaloid, if there are any, have been vastly magnified. Now, for eclampsic *convulsions*, before and during labor, why not apply cocaine to the os and cervix; even packing them with cotton saturated in a two or four per cent solution? This need not and should not interfere with the treatment of other conditions; but when we stop the convulsions before irreparable injury the patient recovers.

THE GOLD COMBINATIONS AS ALTERATIVES.

By THOMAS HUNT STUCKY, M. D., Ph. D.,
Professor of Theory and Practice and Clinical Medicine, Hospital College of Medicine, Louisville, Ky.

(Read before the Mississippi Valley Medical Association at its twenty-first annual meeting.)

At a meeting of the Medico-chirurgical Society, April 15. 1895, I had the pleasure of exhibiting a series of cases which had been taking the preparations of gold and arsenic, known to the profession as arsenauro and mercauro. I was under the impression at the time that the good effect claimed was produced in three ways:

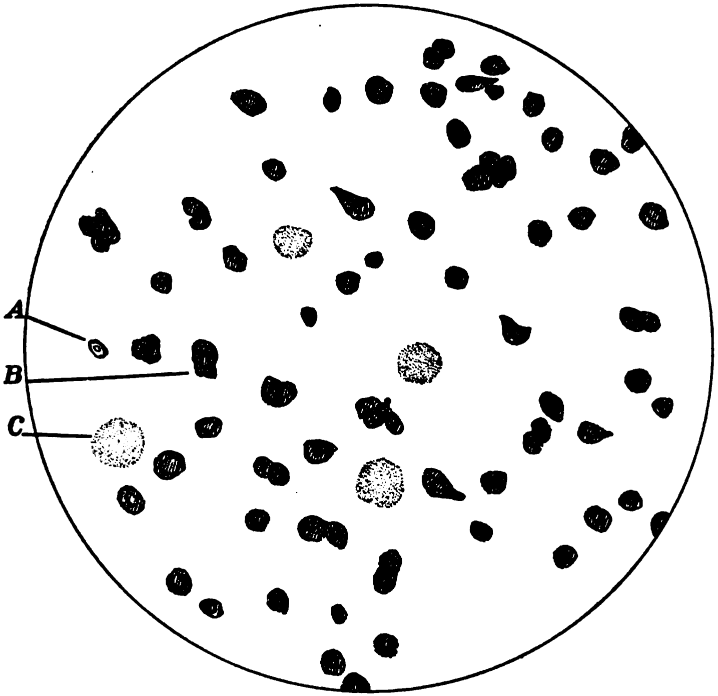
1. By stimulation of the secreting glands of the stomach. 2. By the probable alterative effect upon those secretions. 3. That a local antiseptic influence was exerted.

Having continued my experiments in a vast variety of cases, both acute and chronic, and with varied effects and such unexpected results, I concluded at the first opportunity, if possible, to learn wherein and how the combinations exerted their peculiar and in many respects wonderful influence. This opportunity was afforded during my hospital service, which commenced April 15th last, or about four months ago.

At this time of the year the public wards as a rule are free from acute diseases, and the patients were mostly of phthisis, Bright's disease in its various stages, chronic hepatic troubles, and convalescents. I made it a rule with all these cases to withdraw all medicines except the combination of gold and arsenic. I have selected from a series of cases some four or five, which, with your permission, will be read:

Case i.—J. H., white, aged sixty years; family history good; previous to April, 1894, in good health; normal weight, a hundred and forty-five pounds; present, a hundred and four. Although very feeble, has not taken to bed. On physical examin-

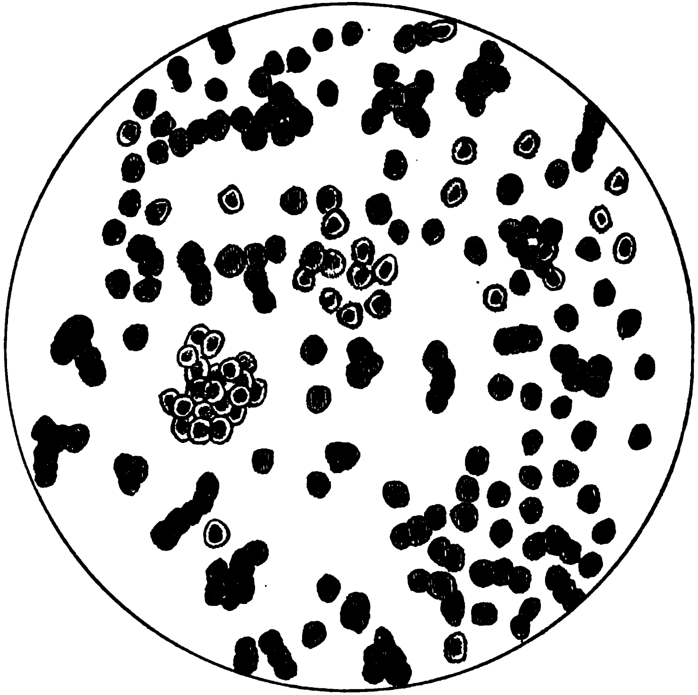
FIG. I CASE II.



A. MICROCYTE. - B. MACROCYTE. - C. LEUCOCYTE.

Case of F.P. – *CIRRHOSIS OF LIVER WITH JAUNDICE, BLOOD CHANGES OF SEVERE SECONDARY ANÆMIA.*

FIG. II CASE II.



SHOWS INFLUENCE OF ARSENAURO UPON THIS CONDITION BY THE GREAT INCREASE IN NUMBER, SIZE. AND QUALITY OF RED BLOOD CORPUSCLES ation, the infraclavicular region of the right side was seen to be flattened, with diminished resonance and numerous moist rales, considerable cough, and muco-purulent expectoration, which contains the tubercle bacilli; has had loss in weight under continuous treatment during the previous six months; temperature from 99.5° to 102° F.; pulse, 96 to 110 a minute. On April 22, 1895, eight drops of the mercuric bromide of gold and arsenic were given hypodermically every four hours, this treatment being continued for six weeks. No deleterious results were noticed; on the contrary, he is decidedly better; physical condition, color, bodily strength, and appetite improved, being now employed as a waiter. The blood counts made at the beginning and the end of the course illustrated well the improvement which had taken place; they are as follows:

April 22d.—Corpuscles, 3,800,000 to the cubic millimetre; hæmoglobin, fifty-five per cent.

June 19th.—The red corpuscles had increased to 5,378,000 and the hæmoglobin to eighty-two per cent. At this time cough and expectoration have disappeared and the moist rales no longer heard; temperature normal; pulse about 90 a minute; deficiency in resonance and expansion remain; tubercle bacilli not found.

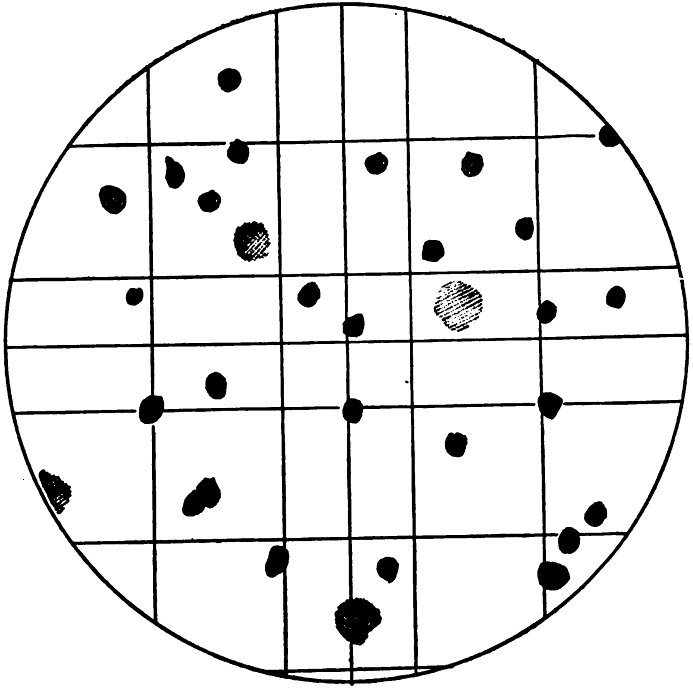
The two points of interest in this case are: First, the increase in the number of red corpuscles; second, and more important, the increase in the quality of red corpuscles as demonstrated in the increase of hæmoglobin. The next case is of considerable interest:

Case ii.—F. P., aged sixty-five years, history of dissipation, admitted November, 1894; much jaundiced; pain in right hypochrondriac region; pain and jaundice gradually disappeared, leaving him much emaciated; anorexia; bowels constipated; diagnosis, cirrhosis of liver. Urine shows no marked deviation from health. Blood contains many small and large red cells, the red corpuscles numbering 3,253,000; hæmoglobin, fifty-two per cent. Treatment, arsenauro, eight drops every four hours, hypodermically, commencing April 22d.

May 5th.—Patient appears to be stronger, remaining out of the bed and not requiring purgatives as formerly. Examination of the blood at this time shows 4,300,000 red corpuscles to the cubic millimetre; hæmoglobin sixty-five per cent.

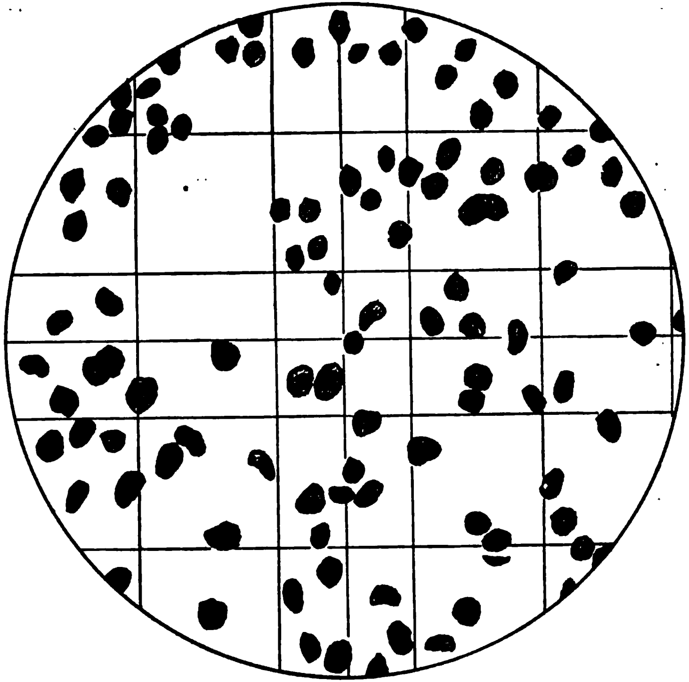
31st.—While still using the gold combination there was a

FIG. I CASE III.



Case of JOHN B.-*CHRONIC PULMONARY TUBERCULOSIS, SHOWING MARKED DECREASE IN THE RED BLOOD CORPUSCLES.*

FIG. II CASE III.



Case of JOHN B.-*FOUR WEEKS LATER, THE RED BLOOD CORPUSCLES HAVING INCREASED 1,600,000 TO THE C.C.*

diminution in the number to 3,850,000 and in hæmoglobin to sixty per cent.

June 19th.—Patient seems to be in fairly good condition. During the past week he suffered from abdominal pain, diarrhœa following this attack. Treatment continued.

20th.—Examination shows 4,650,000 red corpuscles; hæmoglobin, seventy-five per cent.

While there had been fluctuations in the condition of the patient, he is after all much better as regards appetite and bodily vigor.

CASE III.—John B., teamster. Notes of this case began in 1893. He then had flattening, especially of the right side, diminished resonance, pain on pressure in supraclavicular region, nocturnal cough, muco-purulent expectoration. The tubercle bacilli could not be found, and many slides examined during the following two years failed to reveal their presence.

Changes in the physical signs have been slow, the area of dullness has extended to the right side, the heart is drawn to the right. The left lung presents the same signs as the right, but not so pronounced; he has constant fever, the evening rise usually 101° and not uncommonly reaching 103°. The treatment in this case has been varied, including strychnine, cod-liver oil, hypophosphite and the ferruginous combinations. There had been no improvement in his general condition for three months before the administration of mercauro. He remained in bed, appetite poor, anæmic, bowels constipated.

No examination of the blood had been made prior to April 20th, the day he was placed upon mercauro. At that time the blood corpuscles were 3,400,000, hæmoglobin sixty-five per cent. About ten days after this treatment was instituted there occurred a very remarkable increase in the appetite, with the complete disappearance of constipation. Four weeks later, after having been in the hospital for two years, he was sufficiently recovered to leave. The corpuscular count was normal, hæmoglobin eighty per cent, and he had gained ten pounds in weight.

CASE IV.—John H., aged sixty-five years, habits temperate; this patient was one of the few survivors of the pneumonia epidemic of last winter. He had a mild form of the disease, but it left him extremely feeble. He had been treated with Fowler's and Donovan's solution of arsenic, with the bitter tonics, malt and stimulants, from March 14th to April 20th. At the end of this time he was scarcely able to sit in an easy chair; could not stand alone, very pale, pulse feeble and intermittent, bowels constipated, complete anorexia. On physical examination there were pronounced dullness, harsh breathing and moist rales over lower lobe of the right lung, the upper lobe of the left being clear.

April 22d.—Placed upon arsenauro hypodermically every four hours.

May 3d.—The following is taken from the bedside notes: "Patient eats a great deal, complexion good, walks about the ward, lung almost clear, no cough, no expectoration."

The rapid improvement continued, and the patient was dismissed May 20th, able to work at his trade. It should be noted that after five weeks' use of solutions of arsenic, bitter tonics and alcoholic stimulants he had 4,000,000 red corpuscles to the cubic millimetre and hæmoglobin forty-seven per cent. Under the administration of bromide of gold and arsenic the hæmoglobin increased to eighty-five per cent and the red corpuscles to normal.

Case v.—Jacob H., aged sixty years. The patient, a Russian Jew, is deaf, and understands very little English. Examined April 21, 1895. Heart sounds normal; urine presents no striking abnormity. Chronic bronchitis; chalky deposits in different joints, particularly carpo-metacarpal, causing the usual grating sound when manipulated; knee and ankle joints painful—so much so that he is unable to walk; no fever; anæmic. The blood count showed 4,000,000 red corpuscles; sixty per cent hæmoglobin; ten drops of mercauro ordered hypodermically every four hours.

May 10th.—Lungs clear, cough and expectorations ceased, walks everywhere. Discharged cured of cough and pain May 28th, corpuscular count showing 5,450,000 red corpuscles; hæmoglobin eighty-five per cent, or an increase in one month of twenty-five per cent.

Case vi.—Came under my treatment January 16, 1895. Mrs. W., aged thirty-seven years, preservation good, temperament nervous, being intelligent and cultured. She has been a morphine habitué for the past six years; this habit was induced by small quantities being given to alleviate pain, which she maintained originated from a lacerated cervix uteri; this laceration had been successfully repaired, but the desire for morphine still existed, and several futile attempts to rid her of the noxious habit had been made. When she applied for treatment her daily amount was about fifteen grains, which was taken by mouth. The method to be pursued in treatment, judging from the condition of the patient, was to decrease the amount taken by the fractional method of giving half the quantity received the preceding day. To combat the nervous disturbances anticipated by the withdrawal of the morphine, two drachms of the fluid extract of Jamaica dogwood and half an ounce of wine of coca were ordered every four hours. The result of this was not as expected, since on January 19th she was receiving three grains a day; the nervous disturbances were so often that it seemed unsafe to continue the treatment. Her temperature at this time was 97° F. Pulse rate, 110, and respiration, 26, respectively, per minute. Her appetite was much lessened, and was replaced instead by nausea; a serious diarrhœa also existed. The treatment, however, was carefully continued. On January 21st, when only one grain a day was being taken, her chart showed that the loss of appetite, nausea, and diarrhœa had become anorexia, vomiting, and purging, accompanied by continuous muscular vibrations. This resulted in an increase of the morphine to three grains a day, with the dogwood and coca discontinued. At this date liquor auri, arsenii, et hydrargyri bromidi (Barclay), ten drops every four hours hypodermically, was ordered, with no decrease in the amount of morphine taken.

January 23d.—The alarming symptoms still persist.

24th.—Oscillations throughout muscular system are much less marked, with some intermissions; diarrhœa not so severe.

25th.—Only six stools during the day; vomiting has ceased; some hot milk was retained in the stomach.

26th.—The patient slept well during the night; has had no stools; ate some solid food; trembling almost disappeared; no morphine had been given during the day and no desire for same.

The patient continued under treatment, and improved with careful watching. On February 8th the solution of bromide of gold, arsenic, and mercury was ordered to be decreased one drop a day. She was discharged, April 10th, cured permanently.

Case vii.—On February 4, 1895, Mr. H. came under my observation during the course of treatment of Case VI. Age, thirty-two years; preservation good; color exceedingly pale.

This man presented the same malady as the patient in Case VI, having been a morphine eater during the past four years. Several futile attempts toward a withdrawal of the drug had been made, using various methods of treatment. The method of treatment in this case was materially different from that advocated in Case VI, since his daily amount of morphine, which was twenty grains hypodermically, was diminished less rapidly, and at the same time the diminution was supplemented by increasing doses of nitrate of strychnine, commencing with a thirtieth of a grain increased to a fifteenth, this being given hypodermically. The hypodermic syringe had always previously been used by him, resulting in a mutilated cutaneous surface by needle puncture. In order to preserve this surface as much as possible, the daily amount, twenty grains, was ordered by mouth.

This apparently had no effect in satiating the demand, which required the use of the syringe the following day; his anæmic appearance suggested the examination of his blood, which was made without further delay. The corpuscular enumeration amounted to 4,756,000, which was practically normal; the relative proportion of the white to the red was one to six hundred.

The corpuscular elements were, however, far below normal, since his hæmoglobin was only thirty-seven per cent of normal. This, we concluded, gave origin to his extreme palor. The treatment had been in progress only four days when the patient became very much discouraged, at the same time abandoning the attempt. This loss of moral courage was counterbalanced by a complete saturation of the system with morphine. This induced him again to apply for treatment. Instead of continuing the treatment on the same principle as before mentioned, the strychnine solution was abandoned; mercauro, eight drops every two hours, was given during the first two days, with the same quantity every six hours during the following seven days. The morphine was diminished a grain a day. At the end of ten days his condition was very good, having had no marked nervous disturbances, little loss of appetite, and no diarrhœa. The mercauro on February 18th was reduced to six drops every four hours, morphine being discontinued. On March 1st no morphine was being given, all desire for its effects having disappeared; the mercauro was ordered given by mouth. His color was much improved; his appetite for morphine no longer existed; his movements and speech had become composed. He was discharged April 1st, with a satisfactory result. The red corpuscles numbered 4,600,000 to the cubic millimetre.

These two cases are interesting to us from several points of view: 1. They show the comparative values of several methods of treatment used in these afflictions. 2. The impunity with which the economy adapts itself to the drug when given by mouth when it has once been used hypodermically. 3. That these varieties of diseases may be treated successfully with little inconvenience to the patient.

Case viii.—Mrs. C. N., aged fifty-six years; occupation, housewife; preservation very good; history of syphilis not given. This case is one whose nature we find widely distributed and concerning whose outcome we are more or less anxious. This condition arises from the multiple lesions from which this condition may originate, and the many possible locations in which such lesions exist.

This old lady, on June 26, 1894, became suddenly unconscious, and the unconsciousness endured for six hours. When consciousness was regained she found there was a partial loss of motion on the right side. The attending physician, after a careful analysis and search of her history, diagnosticated the case as cerebral apoplexy. On July 13th, after acute symptoms had subsided, she was given increasing doses of sulphate of strychnine, with a thirtieth of a grain as a minimum dose; the doses were given three times a day in conjunction with electricity.

This was continued until January 2d, with apparent but not positive results, since only partial sensation, with no motion, had returned. At this time she applied to me for treatment. Her muscles on the affected side were remarkably atrophied, with a tendency to secondary contraction.

At this time she was receiving half a grain of strychnine three times a day; this, with electricity, was discontinued, liquor auri, arsenii et hydrargyri bromidi (Barclay), six drops every four hours hypodermically, being used. Passive muscular action daily was advised. A comparison of the right and left muscular systems, respectively, was also at this time ascertained. Around right deltoid region measured twelve inches; left, thirteen inches; right bicipital region, eleven inches; left, twelve inches and a quarter; right bicipital during flexion, eleven inches and a half; left, fourteen inches and a quarter; right middle third of thigh, twenty inches and a quarter; left, twenty-two inches and a quarter; right calf, twelve inches; left, thirteen inches and a quarter. The treatment suggested was faithfully executed. In a few weeks improvement was noticed, which continued.

On April 22d another examination of her condition was made. At this time she could feel distinctly whatever came in contact with the parts affected. By means of a dragging motion she was able to go from one place in the room to another. Extension of the forearm and the fingers could almost be complete, while the flexor muscles registered to the point twenty on the manometer. Seeing the past improvement, the gold was still continued, with the expectation of a near approach to recovery.

On May 20th her entire arm could be extended to the plane of the shoulder; extension was very good; the flexor muscles of the hand had recuperated so that they registered thirty points more in strength on the manometer; walking was accomplished readily with the aid of a cane.

We see here a case, apparently hopeless, having reached a point in recovery providing the patient with power to do housewife duties. I selected these few cases out of a large number to demonstrate, in my judgment conclusively, that by the combination of gold and arsenic we have an agent acting as neither of the minerals do when administered separately, or, in other words, we have an entirely new agent in so far as therapeutical action is concerned.

It will be worth our while to look into the chemical differences between the chloride of gold and sodium (salted chloride of gold) and the bromide of gold and arsenic (arsenauro) with reference to its therapeutic action and subsequent elimination.

While not attempting to solve a question which has puzzled experienced men, a few remarks regarding the chemical differences of these agents may furnish a groundwork for an original theory.

1. The chloride of gold and sodium of commerce, so called, is not such in fact, but merely chloride of gold mixed with chloride of sodium; therefore for any chemical purpose chloride of gold only need be considered.

2. Chloride of gold is an extremely unstable compound, its identity being readily destroyed by light or air, while the addition of the least amount of organic matter will almost instantly convert it into albuminate, which upon contact with the mucous

membrane or skin surface (the albumen thus formed) is extremely difficult of solution.

3. Gold bromide, even without the addition of the other material, is a more stable salt, is less sensitive to light, etc., and, when in combination with bromide of arsenic in aqueous solution as found in arsenauro and mercauro, this property of stability is increased to a seemingly very great extent.

4. This change in its attitude with reference to outside influences, from a chemical standpoint, may account for its altered therapeutic properties, and this may be said not only as regards the changes due to the combined therapeutic properties of the combination of gold and arsenic, but with reference solely to the probable modified or intensified quality, which appears to be a changed therapeutic equivalent in the gold itself.

5. As to what I conceive to be the reason of its changed or intensified therapeutic quality of gold in arsenauro, etc. The arsenic bromide added to this solution appears to have rendered the gold more tenacious of its dissolved condition, thus permitting it to be taken unaltered into the circulation.

The finding of gold in the urine after the administration of these solutions would appear to confirm this view.

Taking the formulæ of the two preparations, Fowler's solution would appear to be about thirteen times as strong in arsenic. One would naturally expect to observe a corresponding therapeutic potency; such, however, is not the case.

Fowler's solution often causes stomach disturbances, and often exhibits suddenly what appear to be cumulative effects. Such is not true of arsenauro, even though the full therapeutic effect of arsenauro is being obtained.

Fowler's solution is probably decomposed upon entering the stomach into chloride of potassium and arsenious acid; at any rate, after poisoning with Fowler's solution in quantities, arsenious acid has been found in the folds of the mucous membrane, enough having been redissolved or taken up before precipitation to kill. Arsenious acid is with difficulty soluble in the complex organic contents of the stomach.

These difficulties may be due to conditions in the metals themselves; due to the combination or to a possible new salt thus formed. Certainly the gold found in the combination is more stable and tenacious of its dissolved condition, and certainly the arsenic seems to be more readily absorbed, and to exert its therapeutic effect much more constantly and with a much smaller dose, and to be entirely free from that quality common to all other arsenical preparations, stomachic disturbance. As said before, this may be due to the combination of the two alterative tonics, or to a changed therapeutic equivalent in one or both metals, by their chemical action on each other. My experience up to April 1, 1894, had been in the administration of these products entirely by the mouth. Numerous writers within the past year reported some very unusual results obtained by their use in indiscriminate cases without any regard to any direct line of therapeutic application, or, in other words, that the therapy of the drug was not known. It seemed to be a sort of stopping-off drug, and when everything else failed a solution of the gold was tried.

It was with this idea in view, and the knowledge, or rather lack of knowledge, that led to these experiments. I believe that in the action of the combination of bromide of gold and arsenic we have an entirely different action from any therapeutical agent known; as compared with mercury, iodine, or the combinations of the iodides, the action of gold in the combinations named is greater and intensified; that these combinations enter direct into the circulation as gold and arsenic, and spend their force and exert their influence in an alterative way upon the glandular system; that a marked alterative effect is exerted upon all scleroses non-malignant; that it is not only a blood maker, but a blood builder, and a vaso-motor stimulant; that it not only increases the quantity of corpuscles, but the quality of corpuscles; that under its use hæmoglobin is markedly increased; that it is eliminated by the kidneys; that it produces no irritation either when given *per os* or hypodermically.

I desire to return thanks to Dr. J. E. Cashin and Dr. Purifoy at the Louisville City Hospital for very valuable assistance.

A Gonorrhœa Prescription.

The following is, according to the *Medical World*, Dr. J. William White's favorite injection for the second stage of gonorrhœa:

℞	Mercuric chloride	⅙ gr.
	Carbolic acid	1½ drs.
	Zinc sulpho-carbolate	24 grs.
	Boroglycerin (50 per cent solution)	2 ozs.
	Rose water sufficient to make	8 ozs.

Sections.

MEDICINE.

In charge of SAM'L O. L. POTTER, M.D., M.R.C.P.L.

Sequelæ of Typhoid Fever.—Dr. Dunn, of West Chester, Pa., read a paper at the last meeting of the Pennsylvania State Medical Society, in which he mentioned several cases from his own experience, in which the following sequelæ occurred. (1) *Erythema Nodosum*, 3 cases, in which the nodes appeared along the tibiæ, on the thighs and forearms, two recovering without abscesses. In the third case, after the nodes had disappeared, and an apyretic interval of two weeks had occurred, a periosititis of the right tibia and clavicle occurred, the tibial inflammation terminating in abscess. He ultimately made a good recovery. Bohn's theory is that each of these nodular tumors is an inflammatory infarction, caused by embolism in the cutaneous ves sels If this opinion be correct, the post-typhoid state is certainly a favorable condition for the development of erythema nodosum, and in children, at least, a predisposing cause. (2) *Arterial and Venous Thrombosis*, 2 cases, in which the right leg became painful, tender and swollen. The first case recovered, but in the second gangrene set in and the patient died. At the autopsy arterial thrombosis of the right femoral artery was found, and the spleen was four times the normal size, fully one-half being involved in an abscess. (3) *Abscess and Parotitis*, one case, in which during early convalescence, a dozen or more abscesses developed on the legs, arms and body, also a suppurative parotitis on the right side. The case recovered after a long period marked by mental dullness and aphasia. (4) *Nervous Affections*, 5 cases, in which there respectively developed during the post-febrile stage speechlessness and apathy in two, melancholia and marked listlessness in two, and in one great dejection and depression with desire to die. In these cases the force of the disease seems to be spent on the cerebro-spinal system, and is doubtless due to impaired nutrition and exhaustion of the nerve centers,—the result of prolonged hyperpyrexia. The hydropathic treatment of the febrile stage of typhoid will diminish the frequency as well as the severity of such complications. Cases of post-typhoid melancholia and insanity usually recover; hence they should not be committed to an insane asylum if they can be cared for at home or in a hospital.—*Univ. Med. Magazine.*

Indicanuria.—At the Leeds Medico-Chirurgical Society Dr. Churton read a paper on the utility of testing for this condition. Indican in the urine means that this putrefactive product is circulating in the blood and tissues, and poisoning them either by itself or by its associated toxins. It was easier to test for indican than to inquire into the probability of this toxæmia by questions as to constipation or diarrhœa, color, flatulence, etc. Dr. Klein had found that indol was formed by the bacillus coli in meat broth at 37° C., and that a variety of this bacillus produced a toxin extremely fatal to guinea-pigs. It had also been shown that some pathogenic microbes can form their poisons only when products of putrefaction are present. It was not correct to say that disease of any kind involving the intestines was attended by indicanuria. Dr. Churton had demonstrated its absence in some cases of prolonged constipation, typhoid fever, and strangulated hernia. He doubted the existence of persistent, even slight, indicanuria in perfectly healthy persons. As examples of the utility of finding indican in the urine, he briefly described cases of delirium with convulsions; cholera nostras, with collapse, delirium with spasm of certain muscles; supposed typhoid fever (proved by treatment based upon the discovery of excessive indicanuria to be merely fæcal toxæmia); diarrhœa, probably from subacute colitis; and gout—in all of which, as in many others, the indicanuria entirely governed the treatment—namely, removal of the contents of the colon, and antiseptics. Washing out the colon—very cautiously if ulceration was suspected; calomel in small doses; salol; a milk diet, variously modified; and stimulants, if required, were the means usually employed. The colon was washed out even when non-inflammatory diarrhœa was a leading symptom, as in the cases of English cholera, for instance.—*Lancet.*

Hysteria and Heart Disease.—Dr. Girandeau discusses the occurrence of hysteria in patients suffering from cardiac disease, and illustrates this by two cases under his care. The first, a girl, aged 26, with mitral disease following rheumatism, was for several years subject to attacks of hysterical dyspnœa, fainting fits, and incomplete left hemi-anæsthesia. The second, a man aged 40, suffering from aortic disease as a sequel to typhoid fever; there was general right hemiplegia with contractions brought on by walking and subsiding when the patient kept in bed. The right foot was held in the equinovarious position in walking. The thumb and index finger were not affected, and the patient could write and draw. There was complete right hemianæsthesia. The condition is more frequent in men than in women, and usually occurs in young subjects. Every form of hysterical manifestation may appear, but anæsthesia and other sensory troubles are common. There are often neuralgias fairly easy to diagnose. Præcordial pain may present difficulties. When there is no pericarditis nor neighboring neuralgia, but when great pain and tenderness to touch over the region are complained of, hysteria may be diagnosed. Hysterical dyspnœa may follow a cardiac dyspnœa. The state of the heart and pulse, absence of cyanosis or expectoration must be observed, also the absence of pulmonary congestion. Frequently there are fits or sensations of constriction about the throat, cries or other symptoms not met with in mitral disease. In aortic disease, however, the pain may be true angina. Two cases of this nature were accompanied by anæsthesia; one patient died of an acute attack of angina. Hysterical apoplexy may in cardiac cases be mistaken for coma brought about by cerebral embolus. The attacks are repeated, the hemiplegia becoming more complete after the second or third attack, or appearing several days after the first attack. There are usually accessory symptoms which materially aid in the diagnosis.—*Sem. Méd.*

Chronic Constipation.—Dr. Schreider calls attention to the excellent results obtained during the last ten years in the treatment of this affection without medicine. Before he adopted the mechanical treatment he was unsuccessful in relieving 10 per cent of his patients; since then he has had only three failures in 100 cases. His course of manipulation extends over six weeks to three months, and consists in systematic massage of the large intestine for 8 to 10 minutes daily. A considerable amount of power is employed, and the rubbing and pressure are directed by anatomical considerations. The cure is assisted by gymnastics and exercise; if necessary, mild aperients may also be employed. The diet also is carefully regulated. Before massage is begun the absence of floating kidney, uterine or ovarian disease must be ascertained. Schreiber distinguishes four forms of chronic constipation: (1) in strong, healthy, often young patients; due to hereditary predisposition or sedentary life, or to no ascertainable cause; (2) from the endless forms of digestive disturbance; (3) in patients weakened by neurasthenia or anæmia; (4) in the corpulent. In all these the mechanical treatment is the most certain means of cure. It is of the greatest service in the first form. In the second it will not succeed unless combined with severe and rigid dieting. In neurasthenic cases it must be associated with the means usually employed in the treatment of that disorder, such as change of air, distraction, wet packing, electricity, mental influences, and pleasant occupation. The treatment of chronic constipation by purgatives and enemata undoubtedly lessens the suffering, but at the same time depresses the energy of the intestinal muscles; the longer medical treatment has lasted, the more difficult and tedious will be the mechanical cure.—*Wein. med. Presse.*

The Cause of Death in Electric Shock.—According to Dr. J. Mount Bleyer, of New York, death from electric shock is due to "dynamic apoplexy." He describes the post mortem appearances in a criminal executed by electricity in whom the blood-vessels of the trunk and limbs were almost empty, while those of the head and neck were distended with blood. The violent muscular contractions produced by electric shock naturally tend to alter very considerably the distribution of the blood in the various parts of the body, and it is very probable that great cerebral engorgement, with hemorrhages into the brain substance, may commonly occur in death from electric shock. The medical man who made the necropsy, however, would seem to overstate the case when he says that two quarts of blood escaped when the skull was opened. There is not room in the cranial cavity for that quantity. The immediate cause of death from electric shock is most certainly due to stoppage of the heart, the injury to the brain here described not being an essential factor, though it may frequently exist as a complication.—*North Amer. Practitioner.*

A valuable contribution towards the elucidation of this question has lately been made by Dr. Bleile, of America, based upon experiments with twenty-seven dogs. He has once more shown that it is not the failure of respiration, but the arrest of the heart beat, which is the immediate cause of death, thus confirming the results published recently by Dr. Lewis Jones in the *British Medical Journal.* His figures further show the importance of the duration of the contact in determining a fatal result when the currents are not far removed from the margin of safety. In working near this limit he found that amyl nitrite seemed to increase the animal's power of resistance, and therefore advances the theory that death is not so much due to direct injury of the heart itself, as to the stoppage of the heart following upon a tremendous rise of blood pressure from vasomotor constriction. Dr. Bleile has published no blood pressure tracings in support of his view, and those which accompany the paper quoted above are sufficient to disprove his theory. Atropine did not appear able to avert a fatal result, and this seems to negative the view that the arrest of the heart is due to the effect of the current upon the cardio-inhibitory fibres of the pneumogastric nerve. It is still probable that the current acts directly on the heart by destroying its power of beating rhythmically.—*British Med. Jour.*

TRANSLATIONS FROM THE FRENCH.

By W. L. ADAMS, M. D., Palo Alto, Cal.

Landry's Paralysis.—At the meeting of the Medical Society of the Hospitals, Oct. 18th, Mm. Marie and Marinesco made a communication of great interest concerning a case of acute ascending paralysis of the type of Landry's paralysis. The case was as follows:—A young man, 19 years old, was suddenly attacked with general malaise, pains in the limbs, and fever—the ordinary symptoms of severe infections. The next day the lower limbs were paralyzed. Then the muscles of the trunk and arms were successively paralyzed, and at the end of ten days the patient died with unmistakeable signs of bulbar paralysis, asphyxia and syncope. There has been much discussion, as is well known, about the nature of the lesion in Landry's paralysis. Recently it has been said that it is due to poly-neuritis. In this particular case there was no appreciable involvement of the peripheral nerves, but the lesions of the cord were considerable, consisting in an acute softening with well marked vascular and cellular lesions. A point of still greater interest was that the cord was swarming with microbes. These microbes not having been noticed before their detection in the preparations for the microscope, it was impossible to make any cultures. Nevertheless, their appearance and their mode of staining indicate that n all probability the bacteria in question are those of charbon. This discovery was entirely unexpected, for although one might expect to find microbes in the cord under these conditions, since the malady had every appearance of a general infection with predominant localization in the cord and medulla, yet in the absence of any appreciable lesion of malignant pustule indicating a point of entry one could hardly expect *a priori* that the case was actually one of this disease.—*Gazette des Hopitaux.*

Iodine and Goitres.—At the meeting of the Society of Therapeutics, of November 13th, 1895, the President, M. Ferraud, reported the following case:—A man, 35 years old, having an enormous goitre, was seized with congestive symptoms due to an increase of the tumor. His physician prescribed for external use an ointment containing iodine and iodide of potassium, and administered internally the potassium iodide in 15 gr. doses four times daily. After three weeks of this treatment the goitre had diminished considerably in size, but the patient was attacked with coryza, dyspnœa, diarrhœa, tremor, became cachectic, and at the end of four weeks died with symptoms of cardio pulmonary paralysis. In the discussion of the case some of the members agreed with the medical attendant in attributing the final symptoms to the rapid atrophy of the thyroid body. Others, among whom was M. C. Paul, inclined to believe that the case was one of iodism in a patient of marked susceptibility to the drug. M. Paul remarked, however, that in these cases one should not blame the iodine exclusively, as it was known that each iodide had a different action from all the others and from the tincture of iodine. M. Ferraud called attention to the clinical fact that patients with goitre appear especially susceptible to the action of potassium iodide.—*Le Progres Medical.*

TRANSLATIONS FROM THE ITALIAN.

By D. A. HODGHEAD, A. M., M. D.

Gangrene of the Leg Following Typhoid Fever.—A young man of 25 years was taken sick at Naples, February 12th, 1895. He left there to return to his home in Berna, and upon his arrival continued to go about until February 23rd, at which time being put to bed and a physician summoned, the case was pronounced typhoid fever. He was treated with quinine and liquid diet. Bathing was not resorted to. The disease ran a benign course, and by March 6th, the temperature and the general condition of the patient showed a clear state of defervescence.

Suddenly he was seized with a severe pain in the right leg, the cause of which could not then be explained. After two days the limb became pale, the neuralgic pains continued and there was established a certain degree of anæsthesia. There was no œdema. March 9th, when Dr. Quervain, first assistant at the Berna surgical clinic, saw him for the first time, he found the patient in the defervescent stage of typhoid without symptoms of endocarditis, and with all the signs of an incipient gangrene of the right leg, viz.: limb cold, anæmic with pale and regular cyanotic spots, absence of pulsation in the popliteal space, no fluctuation, mobility and sensibility abolished, neuralgic sensation strong.

After four days the symptoms became more pronounced, the first sign of a line of demarcation appeared, and evidences of venous thrombosis were present. March 21st, the patient agreed to amputation, which was performed the following day without applying the Esmarch bandage for fear of detaching the venous thrombus and producing embolism. The operation (amputation of the lower third of the thigh) succeeded completely, the general state of the patient, which was at the time very serious, improved, convalescence continuing with hardly a symptom of phlebitis and recovery being complete.

Examination of the amputated part showed thrombosis of both the main artery and veins, extending from the inferior third of the thigh to below the middle of the leg. In the inferior portion of the popliteal space there was an abscess with muscular gangrene. The pus in this abscess showed the bacilli of Eberth in pure cultures.

Quervain believes this to be a case of primitive arteritis from the typhoid bacillus, analogous to the cases described by Rattone, with formation of secondary phlebitis, periarteritis and bacillary abscess.—*Gazzetta Medica di Torino.*

Injections of Alcohol for Asphyxia Neonatorum.—For three years Brown, of Alexandria, has experimented in the treatment of asphyxia neonatorum by subcutaneous injections of alcohol (cognac or whiskey), when there was iminent danger. The method is applicable to all cases of threatened death excepting those of hemorrhage. The maximum dose used by Brown was 15 drops, but he believes this amount could be doubled without inconvenience.—*Oest. Ung. Centralbl. f. med. Wiss.*, n. 13, 1895.

Treatment of Sciatica with Nitro-glycerine.—Michalkin, thinking of the narcotic influence which the products of decomposition of nitro-glycerine exercise in the organism, and of the vaso-dilating action favorable to a greater afflux of nutritive material to the parts, has employed this substance in some cases of sciatic neuralgia. He has established a progressive diminution of pain, an amelioration in sleep and a cessation of the most severe attacks. The formula adopted by him is as follows:

Alcoholic sol. Nitro-glyc. 1 per cent	gm.	2
Tinc. capsici	gm.	6
Aq. Menth. Pip.	gm.	12

Take 5 drops three times a day for three days, and afterwards 10 drops three times a day.—*Medic. Obosrenoje, n.* 24, 1895.

REPORT OF THE STATE BOARD OF HEALTH.

By J. R. LAINE, M. D., Secretary State Board of Health.

PREVAILING DISEASES.—Reports from thirty localities, outside of the larger cities and towns, give fifty-seven cases of pneumonia, one hundred and twenty-seven of bronchitis, twenty-seven of pleurisy, nine of congestion of the lungs, fifty-five of diarrhœa, thirty-one of dysentery, fourteen of cholera morbus, twelve of cholera infantum, twelve of diphtheria, twelve of croup, fourteen of scarlatina, one hundred and twenty-six of measles, twenty of whooping-cough, one hundred and thirty-three of la grippe, twenty-six of typhoid fever, one hundred and sixty-six of malarial fevers, one of cerebro-spinal fever, ten of erysipelas, seventy-five of rheumatism, fifty-three of neuralgia, one hundred and sixteen of tonsilitis, and forty-seven of pharyngitis.

Chicken-pox was reported epidemic at Sierra Valley. Whooping-cough was epidemic at Colton and Calico, and measles was epidemic at Santa Paula.

DEATHS.—Reports from fifty-eight cities, towns, villages and sanitary districts, aggregating a population of seven hundred and forty four thousand five hundred and seventy-nine, show a mortality of one thousand—a death-rate of 1.34 per thousand for November, or 16.18 per thousand per annum.

There were one hundred and seventy-one deaths from consumption, fifty-five from pneumonia, twenty-three from bronchitis, twelve from congestion of the lungs, six from diarrhœa and dysentery, eleven from cholera infantum, sixty-three from other diseases of the stomach and bowels, six from diphtheria, three from croup, two from whooping-cough, seventeen from typhoid fever, four from malarial fevers, ten from cerebro spinal fever, forty-eight from cancer, one hundred and sixteen from diseases of the heart, nine from alcoholism, and four hundred and forty-four from all other causes, four of which were from la grippe.

DR. MARTIN J. DUNN has removed his dental parlors to 806 Market street, Phelan Building.

Foreign Correspondence.

THE AMERICAN DOCTOR ABROAD.

Editor of Pacific Medical Journal:—It has occurred to me as just possible that the time may come when an ambitious graduate of the Cooper Medical College, or of the University of California, animated by a desire to test the charming reciprocity in matters medical between Germany and the United States, and the sentiments of German institutions towards those of his own country, will turn his eyes longingly to this brilliant capital as a field for the exercise of the medical function. To him entertaining enterprises of this character, it may be said, that the divine art, though universal in its application, is restricted in practice to within very narrow limits, save and except in his own country. First he will learn that the German Government permits no foreigners as such, to practice medicine or surgery within its boundaries. The practitioner must be a citizen of Germany, and he must possess a German degree. The A. M. M. D. of California will ascertain at the University of Berlin, and this ruling applies to all German universities, that his prized and hard-earned degree is not even taken as evidence of any medical qualification. It is not even considered. He is credited merely with the time actually spent in medical study. This credit amounts to two semesters, nine months. The nine or ten semesters usually required for a University of Berlin degree is thus reduced to eight. A semester exactly defined means five months in summer and four months in winter. During this period of eight semesters, the student is required to pass an examination at the end of two years, and the final at the close of the prescribed period. But the *akademische freiheit*, or the academical privilege of the student, gives him the right to attend lectures or not as he elects, and the average German student coming up to the University elects to enjoy his *akademische freiheit* to the fullest for the first two years. During these years which the San Francisco student devotes to solid work and 85 per cent of all the lectures, the German student as a member of a University corps is "kniping," a generic term for the imbibition of unlimited beer, the devotion of several hours a day to fencing and in fighting duels.*

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*Der Deutches Student, Dr. Von Theobold Ziegler, Professor der Philosophie, Kaiser Wilhelm's Universitat zu Strasburg.

If at the end of seven or eight semesters the American graduate possesses an adequate knowledge of the German language to recite his lesson intelligibly, he will receive his German degree, which does not permit him to practice medicine or surgery. In order to enter the competitive arena of medical practice, he must pass the *staats examen*, which will require a period of from one to two years more. When this latter examination shall have been passed he will find his ambition thwarted by a Government that deems it a public policy to protect the medical profession and to sustain the character of its learned institutions. This Government declares that *no foreigner* can practice medicine in the German Empire. He must first become a naturalized German citizen. At this point of the proceedings the ambitious youth from the Golden West feels happy—an easy task lies before him. He recalls, with fond recollection, the facile method of converting the uncouth sons of *Vaterland* into full blown American citizens on election days, and thinks that he likewise, has only to subscribe to a document he is not expected to read, could not if he desired to, and would not understand if he did. But the task of converting the raw and ready Brother Jonathan nto a meek and gentle child of the Empire is not so easy. For him it means a three years service in the Army, without those deductions accorded to German students. At the conclusion of this Imperial service, if the American aspirant is not already superannuated, or become an heir through a deceased relative, he may put out his sign as a medical doctor, provided he does not get a peremptory challenge to step down and out, from the "Ministry," which it can do, if so disposed, without explanation. In the end it will be wiser perhaps for the ambitious youth of the Golden West to remain upon his native heath, and turn his ambition in the direction of reforming the wicked, weak and ridiculous laws, that leave the learned and honorable institutions of his country to battle with quackery and fraud, and open the doors of a learned profession to the comers from all nations without question, without distinction, and without price.

W. S. Thorne.

Berlin, Dec. 1st., 1895.

Insomnia.—Asafœtida is a valuable remedy in the insomnia occurring in the aged.—*Medical Record.*

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SAN FRANCISCO, JANUARY, 1896.

Editorial.

MILK.

The more we study the subject of milk as food for infants and young children the more we are impressed with enormous difficulties attending its production and delivery, pure and unadulterated, to consumers. That it shall be free from admixture with water and other deleterious substances is but one of the elements in the problem. The milk, though delivered to consumers just as it comes from the cows, may nevertheless contain enough microörganisms to cause disease and even the death of infants drinking it. This view of the subject is treated by Dr. Jacobi in a lecture on "Infant Feeding," published in the first number of the *Pediatrics*. He speaks first of sterilization and pasteurization, and answers the question, "What is it that boiling milk can and will do?" He says: "Air is expelled, germs of typhoid fever, Asiatic cholera, diphtheria and tuberculosis, also the oidium lactis (white mould found on milk) which cause the milk sugar to turn into lactic acid and become rapidly acidulated productive of bad effects on the secretions of the intestinal tract. Some varieties of proteus and most of bacterium coli are render innocuous by boiling, thus preventing many cases of infantile diarrhœa and vomiting,—not all of them. For the most dangerous of all the bacteria are not influenced either by plain boiling or the common methods of sterilization."

It follows, therefore, that when ordinary tests fail to disclose impurities in suspected milk we must call upon the biologist to aid us. Cleanliness about the milk dairy can not be too strongly

insisted upon. There can be no such thing as excessive cleanliness in every step from care in feeding cows to the time when the milk is delivered to the consumer. Contrast the condition of our best dairies with the proverbial cleanliness of the Hollander, and we must at once acknowledge our shortcomings. Dr. Jacobi, in speaking of the danger which attends uncleanliness, and the fact that certain bacteria are not destroyed by ordinary boiling and sterilization, says:—"Aerobic bacteria (consumers of oxygen), the so-called hay or potato bacilli, with very resistant spurs, are found in cow-dung and in the dust of stables, of the soil and streets, and of hay, peptonize casein and liquefy it and render the milk bitter. They are so poisonous that their pure culture gives young dogs a fatal diarrhœa. It takes hours of sterilization to kill them, five or six in some instances. The bacillus butyricus takes an hour and a half. Such a method of sterilization is not one calculated to benefit the milk." He believes in home sterilization rather than trusting to wholesale manufacturers. The cream of such milk is very apt to be separated from the milk. It has been found that healthy cows' milk when fresh has but a faint acid reaction requiring not more that one twentieth of its bulk of lime-water to neutralize it. (Coit.) It has also been found (Rotch) that the milk of cows which feed on grass is much better because containing less acid than does the milk of cows fed on dry food. "Cows fed on blue grass in certain parts of Kentucky produced a milk which was alkaline and which remained so for a number of hours after milking."

"Extensive experiments prove that cows fed freely on sugar beets, which supply a large amount of carbo-hydrates, produce a faintly alkaline milk. The cows that received no beets showed a uniformly acid reaction." Experiments are made which demonstrate that bacteria "may also come from some part of the milk tract between the udder and the end of the teat." These experiments were most carefully made by Dr. Austin Peters, of Boston. After every precaution to eliminate every source of possible means of introducing bacteria into the milk from external sources, he found the first portion of milk drawn from the cows "showed a large number of micrococci and fine bacilli of the same general appearance." "The second half was so uniformly sterile as to awaken the suspicion that the isolated colonies (only one or two) might have been the result of the manipulation between the cow and the plate." At the milk laboratory in Boston, Dr. Rotch has demonstrated that milk can be delivered for use, "clean, sterile and exact in their percentages." The laboratory furnishes milk in tubes containing milk modified to meet the requirements of "age and changed conditions of health."[1]

It is not claimed that milk is prepared superior or equal to breast milk, for, as Jacobi truly says: "No matter how beneficial boiling or sterilization may be, they cannot transform cow's milk into woman's milk, and it is a mistake to believe that the former, by mere sterilization, is a full substitute for the latter." As long as women prefer to bring up their children on cow's milk instead of mother's milk we must try to give this milk in as pure a condition as is possible.

PUNISHMENT FOR SELLING SKIM MILK.—It will be seen from the following from the *Medical Record* that watering milk will soon be a losing business in New York. Complaint was made not long ago that persons arrested for selling watered milk in this city were let off without adequate punishment. The complaint seemed to have been heeded, for two milk-dealers received a few days ago sentences of a $50.00 fine and ten days' imprisonment, instead of the $25.00 fine usually imposed for selling watered and skimmed milk. A few such sentences as these will go far toward preventing the sale of adulterated milk in New York.

EVAPORATED MILK.—The *Medical Record* advises those who cannot take the required quantity to heat the milk rapidly over a flame easily regulated. Diminish the heat before the boiling point is reached, stirring all the time, even after the flame is extinguished. 30 c. m. can be reduced one-half in half an hour.

STERILIZATION BY ELECTRICITY.—*The Chicago Medical Record* states that milk sterilization by electricity is reported to have been discovered by two German scientists; they subject the milk to the passage of an alternating electric current which, they claim, permanently destroys all microörganisms taken up by milk from the air, without affecting the quantity of the milk to any appreciable extent.

PALATABLE AND DIGESTIBLE MILK.—Dr. Robert T. Edes, in *Boston Med. and Surg. Journal*: A pint of milk is gently warmed. Into it is dropped, very slowly and with constant stirring, about twenty minims of the dilute hydrochloric acid of the United States Pharmacopeia. The milk should be stirred until it cools. In this way a very fine flocculent coagulum is produced, floating in the whey, while the whole fluid has lost somewhat of the flat and cloying taste which makes it unacceptable to so many. It will be noticed that milk prepared in this way differs from the various "wheys" in the highly-important particular that the casein is retained and used, instead of being separated out as a distinct product, while it avoids the bitterness of pancreatinized milk. S.

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[1] Chemical and pathological characteristics of milk.—*Medical and Surgical Reporter*.

THE TABLET FAD.

A great many physicians have an idea that a new era has dawned in the practice of medicine due to the substitution of tablets for written prescriptions. In a word, every doctor can be his own druggist and dispense his own medicines. When we note how elegantly these tablets are prepared, their portability and stability, the small space necessary to accommodate a great number of drugs, and further the proposition that any desired formula can be thus put up free from disagreeable taste and smell, we cannot wonder that many doctors eagerly accept this innovation with a feeling that they are now freed from dependence upon the druggists.

Unfortunately there is another side to this pretty picture—so speciously put forth by the tablet manufacturers. For the present it looks as though we should still be obliged to depend upon the druggist to prepare many of our prescriptions, for in spite of the honeyed words of the manufacturers the users of these tablets must experience many disappointments in their use. The editor of the *Medical Age* very pertinately says many drugs are entirely unsuited for this method of dispensing on account of their volatility and rapid deterioration, such as creosote, ammonium carbonate, menthol, camphor, etc. "Abjure all tablets purporting to contain resins, alkaloids, tinctures and other volatile or easily changed medicaments." S.

THE expense of a medical education in London (five years) is given as from three to five thousand dollars, in round numbers, the difference depending upon the living habits and economy of the student. This amount covers clothing, board, fees, books, instruments, graduation and incidentals.

OHIO MEDICAL LEGISLATION.

It is gratifying to read that the preliminary struggle towards favorable medical legislation in Ohio has been most successful. The next House of Representatives will contain eight members from as many different counties. The election of so many representative medical men augers well for the passage of the Maguire Bill. With the passage of this bill no longer will "Ohio be a stench and by-word as the paradise of quacks and their ilk." One by one the States are passing laws controlling medical practice. In a few years the horde of quacks now swarming in Massachusetts, Ohio, and a few other States will have to emigrate to other lands or go into some other line of business. S.

PEDIATRICS.

Under this title a new journal has been launched upon the troubled waters of medical journalism. It presents a right gallant appearance; it is well manned and we predict for it smooth sailing. It will appear simultaneously in London and New York. We have shown our appreciation for it by making free use of its leading article by that veteran, Dr. Jacobi, in our editorial on milk.

"THE PHYSICIANS' BUILDING."

The elegant new building for physicians which has been erected by Dr. M. Herzstein at 803 Sutter street, has just been completed, and is now occupied by the following named gentlemen: Dr. J. H. Barbat, Dr. F. B. Carpenter, Dr. C. E. Cooper, Dr. W. Dodge, Dr. E. G. Frisbie, Dr. F. Fehleisen, Dr. E. F. Glaser, Dr. W. E. Hopkins, Dr. E. E. Kelly, Dr. A. Liliencrantz, Dr. M. Regensburger, Dr. S. L. Strickland, dentist. Wakelee & Co. will also have a dispensing drug store in the building, and in the basement there are being fitted up elaborate medicated baths which will be open to the public on a physician's prescription only. In addition to this, the building is to have many special features to fit it for use as doctors' offices, such as electric light, electric elevator, hot and cold water, steam heat, private telephone lines, a laboratory, library and operating room for the tenants.

The building marks a new departure in specialized architecture on this coast and the architect, Mr. M. J. Lyon, has produced a structure unique in design and with details most carefully worked out. The building will be exclusively for professional use and will be known as "The Physicians' Building."

LIFE INSURANCE.

Many of the life insurance companies are feeling the effect of hard times. They find it necessary to economize, and have concluded to reduce the medical examiner's fee. There is not a board of directors of any life insurance company in the land that believes the medical examiner is overpaid or even sufficiently paid. Nor is there a board that believes that it would be economy to employ an irresponsible examiner. The directors do know, however, that medical men will submit to almost any form of imposition from corporations,—that if the older examiners will not submit to a reduction, there will be no difficulty in getting good men to take their places. The medical profession should stand together in this matter. For a company that pays its president a salary of $100,000 a year to reduce the medical examiner's fee in order to economize, is simply an insult and indignity to the medical profession. Physicians can live without the assistance of life insurance companies, but life insurance companies cannot do business without the services of the medical examiner. It is clearly the fault of the profession and not of the companies if a reduction in examiner's fees is tolerated. A *united profession* and the fees will *stand*, divided and the fees will *fall*. Examiners should bring this matter before every Medical Society in the country, obtain the support of the whole profession and the companies will be compelled to economize where economy will be in the interest of the insured. Perhaps the companies could do with less extravagant and costly buildings for instance.

AMERICAN MEDICAL REVIEW.

A Monthly Review of Current Literature.

The first number of this journal lies before us. On first turning its leaves we note that in its make up it follows that of the *Review of Reviews*. A closer examination shows its aim is to give a concise and practical abstract of the leading medical papers published during the month. Besides other commendable features, its index medicus cannot fail to make this a welcome journal to the busy physician.

DR. E. S. MEADE.

The Woman's Medical Club of California at the regular meeting, Dec. 14, 1895, adopted, the following resolutions on the death of Dr. Euthanasia S. Meade:

WHEREAS, Death has removed from our midst Dr. Euthanasia S. Meade, of San Jose, the pioneer woman physician of the Pacific Coast and the first President of this Club; and

WHEREAS, In the death of Dr. Meade the medical profession has lost an able, scholarly and conscientious member, her patients not only a wise and sympathetic physician, but also a true and loyal friend; and

WHEREAS, We, members and associates in the medical profession, appreciate the brave heart and courageous spirit, undaunted by all the prejudice and obstacles in the way of the honorable pursuit of her chosen profession in pioneer days, thereby making the path easier for us who have followed; therefore, be it

Resolved, That while we bow to the inevitable and know that the doctor has simply answered the call of the Great Physician, we sincerely mourn her loss.

Resolved, That we sympathize deeply with her many friends in this sad bereavement and assure them that her work shall ever live.

Resolved, That these resolutions be spread upon the minutes of this meeting in full and a copy sent to the medical journals of the coast and to her relations.

Resolved, That when we adjourn we do so to the memory of the late Dr. Meade.

Respectfully submitted,

MARY B. RITTER,
SARAH I. SHUEY.

A Serviceable Rule.

Dr. Goodell never passes a sound into the uterus without first demanding a full history of menstruations. Attention to this rule will often prevent your tendering the designing patient a cheap abortion. Even with a clear history, he repeats the rule of the elder Dr. Goodell: "Cervix hard as the tip of your nose, no pregnancy exists; cervix soft as your lips, pregnancy almost certain to exist."—*Medical World.*

Proceedings of Societies.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

Regular meeting November 12th, 1895.

The meeting was called to order by the President, Dr. C. C. WADSWORTH. On motion the calling of the roll was dispensed with.

The SECRETARY read the minutes of the last meeting except that portion not touching the regular business and discussion, the Society voting that it be dispensed with.

DR. DAVIS: Mr. President, these minutes are of the utmost importance to us and I believe the Secretary should read them entire. The report of the committee was not worded in just the manner read, but it amounted to the same thing.

This vote to read all the discussions was lost, 10 to 5, and the Secretary was instructed to read only the part of the minutes relating to Dr. Kuhlman's resolutions and the regular business; Dr. Kuhlman's speech not being read. The minutes were approved as read.

There were no sick members reported.

Under the head of Propositions for Membership the following name was handed in: Dr. Isaac M. Houston, 315 Geary street, a graduate of St. Louis College Physicians and Surgeons, 1889, by Dr. Chas. C. Wadsworth and Dr. A. P. Woodward. This was referred to the proper committee.

The Committee on Admissions reported favorably upon the credentials of the following: Drs. J. F. McCone, F. R. Orella, A. M. Todd, M. J. H. Woolf, and C. A. Dozier. On being balloted for all were elected to membership.

The SECRETARY stated that at this meeting it was usual for the officers to make their annual report, but that none were on the table, probably the fault of Secretary. They would be ready at the next meeting.

DR. C. E. FARNUM read a paper with the following title: "A Suggestion that National Legislation Provide for a Medical Examining Board to Confer a Special Degree in Medicine and Surgery, and that State Legislation Provide that Hereafter State Medical Boards shall License only upon Such Degree." [The paper appears in full in this number of the JOURNAL.—EDS.]

DR. R. BEVERLY COLE, President of the American Medical Association, in opening the discussion, said: "I have listened to this paper with great interest and find that much of it is of great value. But I deem it utterly impracticable that such a National Board could be established in this great free country, either at Washington or as a migratory board. If so it would be well, it would establish a higher standard. Now the author states that the board should consist of surgeons from the Army and Navy. Now in my point of view, I do not believe that they would be nearly so efficient examiners as others—say as teachers would, *they* would be more practical. Again, who would appoint the board. The President or the Secretary of State? And if so, would it be free from that abomination in all countries, politics? There is an idea in the doctor's paper, and if it were possible such a board should be appointed. Another point I note in his paper that all who apply for a State's license shall bear a degree from the National Board. Now, why need a State Board? Why not recognize the National Degree throughout the land and do away with the State Licensing Boards. As I said before, if such a board could be created let it be preferably of teachers and practical medical men. I do not wish to state that those of the Army and Navy are not such, but they are bound to become rusty; except possibly in reading many have never seen cases of acute diseases, done an ovariotomy or laporotomy, or amputated a limb, unless during warfare. They are not brought in contact with the other men, and are counted bright because they pass a brilliant examination. Hence it is a neat question how to reach the end involved in this paper. Let me say here to the author, without desiring to pluck a leaf from his wreath of laurel he should wear, that the subject is not new. It has been discussed at the National Association, but has never been solved, though I believe it has tended to make the standard of medical education higher. The author speaks truthfully of the evil of some colleges claiming to possess a higher standard than they really give. I believe that another decade will see the standard raised through the influence of the colleges, to an equal of the requirements abroad, and certainly equal to the necessities of this country."

DR. MCNUTT: I have listened with the greatest interest to Dr. Farnum's paper and the remarks by Dr. Cole, and I hardly think it was fair to criticize the details of Dr. Farnum's paper, he is getting at the object all right. A betterment of our standard is what we need, and we are seeing an improvement from day to day. There is the change from two year schools to three years, and then many to four years. This paper brings up the ever question of medical education. If such a national board would be appointed there would be many questions arise—would such adoptions compel other States to recognize them? The Government could recognize those examined by that board as being fit for all appointments, civil and military, as quarantine, etc. But would it compel every State to do so? Would every State recognize these and not graduates of colleges? Of course many students would want such a degree, even if they had no idea of seeking appointments. The question of who should compose the Examining Board is, to my mind, an important one. I believe it should be composed of half Army and Navy men and the rest from each State. Say California for instance. Suppose eight would constitute our board, four could be Army and Navy men and four selected from the State at large. Such a plan would make the board more popular. I agree with Dr. Farnum that the subject will never be satisfactory while the medical colleges are turning out so many doctors after short terms.

DR. CARPENTER: The author is on the right track, and the whole subject turns to the stand of medical education. The colleges are not entirely to blame, however. Much is due to the Boards of Examiners of the different States; they should raise the requirements in future examinations. The colleges have raised the standard of entrance examinations, many formerly demanded a simple school education, now this is being changed and more time also added to the terms, some now requiring four years of study. All this is good. The Examining Boards have it in their power to raise the degree of education, but they can not do it at once. The elevation of the standard of entrance examination means an elevation of the general standard of medical education.

DR. KUHLMAN: Five years ago I was chairman of a prosecuting committee in Nebraska, and we prosecuted 74 quacks to the bitter end, securing a conviction in every instance, and during this legal combat I looked up this subject and found that the scheme of a National Board, as suggested, is unconstitutional. The Supreme Court of the United States rendered a decision that such matters came under the State's laws. A good State Examining Board would be a desideratum, especially in this State. Many of those, especially foreign doctors, are not entitled to practice. The problem has been probably solved by Illinois, and upheld by Supreme Court, that all foreigners must pass an examination before the board if not already in their own country. Such a plan should be in force here, not only for foreigners, but others as well.

Dr. Farnum: I would like to refer to some points brought up by some of the gentlemen just spoken. As to Dr. Cole's question who should appoint such a board? It was presumed that the appointment would be under the superior officers, just about those who appoint examiners for the Army and Navy at the present. We should not discredit these men; they are good men, and to my mind have shown their particular fitness for such work. As to political control, that is all removed when one is on the medical staff, they advance by examinations, and I cannot see how political influence can come in with the superior officers. The object of a State Board would be to regulate the licensing of medical men. The idea of centralizing power is a nice one, but we must remember that when we have constituents to represent us, as in any board, it is not so easy. The idea again of having the board composed of teachers is objectionable. They might be all right to examine students for degrees at college, but not to examine foreign or other graduates, they might favor large student classes. I believe the members of the board should not be professors or teachers. As to a previous suggestion of this plan I plead ignorance. I did not look up the literature of the subject very much. This board would not be a licensing board but an examining board, and if the States compelled an applicant for a license to possess a certificate from the National Board it would become necessary to get it. It has just been suggested that the colleges are increasing their standard. That is all very well, but the better class of colleges haven't so much influence over as great a number of men as have the other colleges,—eclectic, homœopathic, etc. Only a moderate number of the graduates of the higher colleges are practicing. I was pleased at Dr. McNutt's suggestion of having part of the board appointed from medical men of the State, but object to their being teachers. The licensing boards would, in a way, come to the aid of the colleges who wish to increase their standard, for if the local board can influence the colleges, the National Board's influence would be greater.

Dr. Davis said in reference to Dr. Kuhlman's amendment: If in order, I move that this subject be laid over until the next meeting as we have another paper to-night and much work ahead of us, and it can be discussed then as well as now.

Dr. Kuhlman: The Constitution provides for this, it states that it should be printed and forwarded to members and be made a special order of business at a special meeting.

Dr. Kerr: It is a special order of business but not at a special meeting.

The President: If we lay it over it must be taken up at the next meeting.

Dr. Herrick: Mr. President and members of the Society, the hour is late and if the Society so desires I would be pleased to postpone the reading of my paper until the next meeting.

On motion of Dr. Cole, Dr. Herrick was requested to read his paper at the next meeting.

The **President** stated that at this meeting the annual election of officers would take place and ordered the Society to prepare to ballot.

The election of a President for the ensuing year being the first on the list. There were 48 ballots cast. Dr. W. F. Cheney received 34; Dr. Kulhlman 12; scattering 2. Dr. Kuhlman then moved that the vote be made unanimous; seconded by Dr. DeWitt and carried. Dr. Cheney was then declared duly elected President for the ensuing year.

Dr. Kerr moved that where there was only one candidate for an office that the Secretary cast the ballot. So carried and ordered. The Secretary then cast the ballot as follows: First Vice-President, Dr. J. Henry Barbat; Second Vice-President Dr. F. B. Carpenter. Recording Secretary, Dr. A. P. Woodward, cast by Assistant Recording Secretary. Assistant Recording Secretary, Dr. Lucy M. F. Wanzer; Corresponding Secretary, Dr. Lucy M. F. Wanzer; Treasurer, Dr. W. S. Whitwell; Librarian and Curator, Dr. Douglass W. Montgomery. For Trustees, Dr. Henry Gibbons, Jr., Dr. W. F. McNutt and Dr. Jas Simpson. For Committee on Admissions, Drs. H. H. Hart, G. F. Shiels, J. M. Williamson, T. B. DeWitt and E. R. C. Sargent.

Dr. Barbat withdrew his name as a candidate on the Committee of Medical Ethics and moved the Secretary cast the ballot. This was done and the Committee stood: Drs. J. D. Whitney, N. Rosencrantz, S. P. Tuggle, P. M. Jones and Adelaide Brown.

The Secretary also cast the ballot for the Committee on Finance: Drs. H. M. Sherman, Kate I. Howard and C. E. Farnum. Committee on Library and Publication: Drs. Montgomery, G. W. Fuller and W. B. Lewitt.

The following ballot was cast for Executive Committee, 22 votes cast: Dr. Kreutzmann 14, Dr. Carpenter 17, Dr. Kenyon 17, Dr. Herrick 12; scattering 1. The President thereupon declared those three having the highest number of votes duly elected the Executive Committee, viz: Carpenter, Kenyon and Kreutzmann.

The retiring President, Dr. Chas. C. Wadsworth, introduced his successor, Dr. Cheney, with a few appropriate remarks, and the new President, Dr. W. Fitch Cheney, said: I wish to thank the Society for the honor thus conferred upon me, for it is an honor and I shall always endeavor to hold the respect of those who have conferred this honor upon me. I hope for a prosperous year and shall exert myself to that end.

Dr. McMurdo, under the head of new business, made the following motion, which was carried: "That a journal reprint of the paper read by Dr. Chas. E. Farnum, be forwarded to the Secretary of every Medical Licensing Board in the United States, and to each member of the California State and the National Medical Association."

The Secretary moved that the President of the A. M. A., Dr. R. Beverly Cole, be placed upon the Honorary list. This was carried and so ordered.

Dr. Carpenter said he had noted the death of Dr. Basil Norris, a member of the Society, and asked if any action had or would be taken by the Society.

The Secretary stated that the funeral would be at the Presidio, at 2 p. m., and that the Society might be represented by a committee.

The President stated that Article 19 of the By-Laws covered this point, and appointed as such Committee, Drs. G. W. Davis, C. E. Farnum, F. B. Carpenter, W. F. McNutt.

There being no further business, the Society adjourned.

Absorption of Ligatures.—In four hundred experiments it was found that, in from one to two years, seventy per cent. of catgut ligature had become absorbed; thirty-six per cent. of silk, sixty-six per cent. of hemp or flax, and twenty per cent. of horse-hair. Order of rapidity: catgut, hemp, silk, horse-hair. —*Porta.*

THE SAN FRANCISCO SOCIETY OF EYE, EAR, NOSE AND THROAT SURGEONS.

Reported by W. F. SOUTHARD, M. D.

(This report includes all meetings from March 21st to December 12th, inclusive.)

A meeting was held March 21st, 1895, the President, Dr. A. H. Voorhies in the chair. The minutes of the preceding meeting were read and approved. There being no regular paper, Dr. Barkan brought up the subject of

USE OF SUTURE IN CATARACT OPERATIONS.

He gave a verbal history of a case upon whom this method had been used with success. Three years ago a man of 55 or 60 years of age came to him for treatment of his eyes. He had a mature senile cataract in one and an incipient cataract in the other. The patient was a person of a most irascible temperament, an incessant talker and very nervous. He was admitted to the hospital and the eye with the mature cataract was operated upon under cocaine anæsthesia. The cut was made upward and almost wholly in the cornea, in fact, more so than is usual with him. An iredectomy was then made and the senile lens was easily removed, though a little extra pressure was made on lower portion of globe in coaxing it out. From the commencement of the operation to its completion there was nothing to mark the case as one out of the usual course. The patient was quiet throughout the whole time of operation. There were no complications, the anterior chamber refilled promptly and the pupillary area looked clear, the eye was then bandaged and the patient put to bed.

The following day the doctor was summoned in great haste to see the patient, whom he found on his arrival suffering with pain in the eye operated upon. On removal of bandage, which was done with many forebodings, the doctor found that the flap made by the cut in cornea was everted and vitreous presenting *at* the wound, none extruding. The flap was replaced after some manipulation and the eye again bandaged. The next day, the second day following the operation, the doctor was again called in haste. On removal of bandage he found the flap everted as before and vitreous *in* the wound. The patient was in such a restless state that it was thought best to chloroform him, which was done with some difficulty. A suture was then put through edge of cornea and into conjunctiva above. While preparing to insert a second, the patient exhibited such symptoms of succumbing to the chloroform, and such vigorous measures had to be used to save his life, that it was thought best to let matters rest as they were. The edges of wound were in good apposition and had not become disturbed during the endeavors made to resuscitate the patient. A bandage was then applied and patient kept in quietude. From this time no more pain was experienced. The patient made a good recovery. Vision equal $\frac{6}{18}$. Reading fairly good for large type.

The doctor in conclusion said that this case gave him an opportunity of bringing up the subject of corneal sutures in cataract operations since some attention had of late been given to this subject by a few writers.

DISCUSSION.—Dr. Pischl stated that he had never used a corneal suture. Dr. Czermark had at one time used corneal sutures but had long since given them up. Dr. Voorhies stated that he should not care to use a corneal suture in cataract operations unless for some such purpose as in the case narrated by Dr. Barkan, more especially as from the description of the technique of this manœuver as practiced by Dr. Kalt, who introduced four or five stitches before the cut was made, he considered complicated the operation too much for the prevention of a possible prolapse. He mentioned the fact that the late Dr. Henry W. Williams, of Boston, Mass., made use of corneal sutures at least 30 years ago.

This was corroborated by Dr. Southard, who not only had witnessed but had assisted in many of these cases when a student under Dr. Williams. Dr. Williams at that time used a Beers knife and operated downward, and invariably took one stitch. His recollection is that Dr. Williams made a small conjunctival flap, the cut not being wholly in the cornea.

Dr. O'Toole concurred in the idea that it was inadvisable to depart from well established methods in operating for cataract, at least for the present. This was the generally accepted view of the Society as a whole. In exceptional cases, exceptional means were always permissible.

Dr. O'Toole spoke of a case of poisoning from the use of a 4 per cent solution of cocaine. The patient had used it for 20 consecutive days, and had made a good recovery soon after ceasing its use.

Dr. Voorhies gave the history of a case of detachment of retina, nasal half of right eye, complicated with cataract in same eye. The patient, male, 30 years of age, came to the doctor on his return from an Alaskan trip. The eyes had been exposed to the dazzling brightness of rays of light reflected from water and glaciers. After the cataract was removed, it was found that the patient had vision on nasal side only, the macula remained intact. Vision about $\frac{30}{70}$ or $\frac{6}{12}$. No increase of detachment subsequent to operation.

Dr. Barkan then narrated briefly a case of double cataract operation; the patient in the last stages of Bright's disease. The patient had been a tavern keeper, a hard drinker for many years. The operation was made on both eyes at one sitting, cocaine being used. Bandage removed the third day, eye balls bloodless; color, ashy white. The corneal wound had healed without any disturbance. Patient made a good recovery and had good vision for the remaining two weeks of his life. The case was remarkable on account of the kindly healing of corneal wound in a person practically in a dying condition.

The Society went into executive session. Dr. P. M. Jones was elected a member. Dr. M. H. Woolsey made application for membership.

It was voted that the minutes of the Society's meetings should be furnished to the PACIFIC MEDICAL JOURNAL and the *Occidental Times*. It was also voted that the minutes should be approved before sending them away. Meeting then adjourned.

Dr. Chas. Bell Taylor, F. R. C. S., London, says: "I have tried the suture and it is scarcely ever required; it complicates and prolongs the operation, it is itself a source of irritation and is not always a preventive of prolapse."

A meeting of the Society was held November 13, the President, Dr. A. H. Voorhies, in the chair.

The paper for the evening was by Dr. Pischl, who demonstrated a case of

INJURY TO THE EYEBALL

with a small piece of steel which led to the destroying of sight in spite of the removal of foreign body. A young man, aged 22 years, who had lost sight of his right eye as a child through some injury, was brought to my office in July, 1894. Four days previous while hammering an iron rim of a pickle barrel upwards a piece struck the left eye. He saw black clouds moving before his eye, which soon became thicker, and the eye became inflamed, but not painful. In right eye was amaurosis; in the left, movement of the hand with good projection of light, pupil after atropia well dilated with a few synechia. Hypopium 1½ mm. in cornea near limbus in and down small sear. Small hole in iris from which a grey streak leads to grey patch in upper posterior part of lens. On anterior capsule in center a drop-like swelling (1½ mm.). In the lower part of vitreous greyish reflexion, no red light from fundus. Though I had very little hope of saving the eye, and I so told the relations of the patient, I tried to save it. The foreign body, a small piece of iron, was successfully removed by the magnet.

August, 1894, I found eyeball nearly pale, pupil well dilated, a few synechia, anterior capsule disappeared, but grey yellowish cataract in fundus, many black opacities moving, so that not much red reflex to be seen. Still sensitive towards light but not to touch; finger in 1 m. For one year one attack of irodocyclitis followed another which in spite of hot application, mercurial inunction, subconjunctival injection of corrosive sublimate 1:2,000 destroyed the sight so that in July, 1895, projection of light (16 candle power electric light) was not quite prompt, tension of eyeball somewhat lessened, chamber deep; pupil narrow, closed by yellowish membrane. An iridectomy showed that this membrane consists partly of cataract, and to greatest extent was a thick tough membrane which could not be separated by the needle, and was of course the result of frequent inflammations. The case has to be considered hopeless.

In addition, Dr. Pischl demonstrated a specimen: Eyeball which he had removed for a similar injury which the patient had received two days before he was seen by the demonstrator. Two hours after the injury subretinal hemorrhage was diagnosed by a colleague and atropia ordered. When Dr. Pischl saw patient panophthalmitis had set in already, swelling of lids, chemosis, cornea dim, gray iris, swollen pupil, narrow yellow reflex amaurosis. As the removal of the foreign body would not have been of any value since the infection of the whole eyeball had already taken place the eye was removed. After opening the eyeball a piece of steel was found lying in the vitreous surrounded by suppuration.

In reviewing both cases the demonstrator advised to try the removal of the foreign body as soon as possible, there are, of course, some cases in which the infection may be so poisonous that even then the eye cannot be saved.

A meeting was held Dec. 12th, the President, Dr. A. H. Voorhies, in the chair.

The first case of the evening was demonstrated by Dr. G. H. Powers, who presented a young man, 30 years of age, who, 17 years ago, received

A CUT BY GLASS IN LEFT EYE,

Involving the cornea and sclera and ciliary region. Enucleation was advised and refused. After snipping off hernia of iris wound was allowed to heal, with small anterior synechia, and good vision, nearly or quite $\frac{20}{30}$, was enjoyed for 17 years with only one briefly inflammatory attack, of no importance, at the end of 12 years. In August, 1895, pain, ciliary injection, increased tension and cataract appeared and vision was abolished. Enucleation was again urged and refused. Thinking the pain might be due to swelling of a soft lens, and as the pain increased steadily and was very severe, the cataract was extracted in the usual way with the result of relieving the pain at once and almost abolishing it, but the pupil was annihilated by stretched fibers of discolored tissue and no vision was gained. In December a single instillation of a 2 per cent sol. atropiæ produced marked glaucomatous pain and tension which were speedily relieved by eserine ½ per cent.

Dr. Powers then presented the following case: Colored woman, perhaps 30 years of age, well nourished, of healthful appearance, and with no history of disease or trouble presented herself at Dispensary of University of California, Dec. 31, 1894, with marked glaucoma of left eye and dimness of vision and excessive pain and tenderness. Iridectomy refused. Right eye undisturbed. Under eserine some relief was afforded, but so little that about Jan. 25, 1895, iridectomy was made. Strong hemorrhage from iris, and part of lens was involuntarily extended from the eye by spasmodic closure of lids. After second day probably new intraocular hemorrhage occurred from a large clot protruded through the wound. After the usual prolonged healing in such cases a cystoid cicatrix remained, which has, however, now disappeared. In April, 1895, glaucoma supervened in the other, the right eye, and immediate iridectomy was urged but refused. Cataract and loss of vision speedily followed and there is now not even perception of light.

Dr. S. Trask spoke of a rare case of

MULTIPLE POLYPI OF NASAL ACCESSORY

producing "frog-face." John Lafarque, Oct. 27th, native of the south of France and laundryman by occupation. When 12 or 14 years old bled regularly from the nose two or three times a month for a period of six months. When 20 years old was operated on in both nostrils with great relief to breathing, and bled no more spontaneously until the middle of August, 1895. But in 1893 was operated on in this country twice a week for two months, and had a hemorrhage each time lasting two hours, but not profusely. Sept. 23, 1895.—The patient has asthmatic breathing and nasal stenosis, great enlargement of nose at naso-frontal junction and characteristic spreading of the face on a line with malar prominences. Hears the watch normally in the left and $\frac{1}{18}$ in the right. Also defective vision in the right. Marked pallor and physical weakness. The right nasal passage is blocked from the cluster to the vestibule by a semi-solid mass, pink and globular by rhinoscopic view, more characteristic of the grape cluster and of various opalescent hues in front. On separating the cluster, with a probe, a rivulet of creamy pus, having the odor of musty straw, issued from the upper spaces of the nose. Same character of growth in the left side though a narrow breathing space existed. Was placed on tincture ferri chloridi three times a day, and on Oct 11th, the general health having improved, the first of a series of three operations was performed, with scissors and cold snare, by which successive sections of the growths were removed without great loss of blood and an abundant breathing space established. The accomplishment of this latter purpose, that is, the establishment of normal breathing, is as far in such cases as the operator thinks the conservative surgeon should go.

After a full and free discussion on this and the previous cases, the members proceeded to executive session. Dr. G. W. Merritt was elected a member. The Society then adjourned.

THE Stearns' Calendar for 1896 has just been received. It is a very handsome example of photographing in colors. The calendar, besides being useful, is an ornament to any office. It may be obtained from the firm of F. Stearns & Co., Detroit, Mich., for 25 cents to cover postage and packing.

Literary Department.

Under the charge of W. F. McNUTT, M.D., M.R.C.S. Edin., etc.
Professor Principles and Practice of Medicine in the Medical Department
University of California, etc.

A SYSTEM OF SURGERY. By American Authors. Edited by FREDERICK S. DENNIS, M. D., Professor of the Principles and Practice of Surgery, Bellevue Hospital Medical College, New York; President of the American Surgical Association, etc., assisted by JOHN S. BILLINGS, M. D., LL. D., D. C. L.; Deputy Surgeon-General, U. S. A. To be completed in four im. 8vo. vols., 900 pp. each, with index. Profusely illustrated with figures in colors and black. Vol. III, 908 pp., 207 engravings and 10 colored plates. Price per volume, $6.00, cloth; $7.00, leather; $8.50, half morocco, gilt back and top. For sale by subscription. Philadelphia: Lea Bros. & Co.

This third volume is written by twelve contributors, six of whom are specialists, viz.: two ophthalmologists, one laryngologist, one aurist, one dermatologist, one syphilographer; the other six are general surgeons. Prof. R. W. Taylor's chapter on Syphilis consists of 110 pages and is a most concise and comprehensive statement of the views held on the subject by the foremost specialist of the day, no writer could have been obtained whose dictum is more authoritative on this subject than that of Dr. Taylor. Prof. Delavan's contribution on the Larynx and Trachea consists of 100 pages, and is an excellent exposition of the latest knowledge extant on these subjects. Prof. De Schweinitz takes up Diseases of the Lids, of the Conjunctiva, of the Cornea, of the Sclera, of the Iris, of the Choroid, of the Vitreous, Retina, Optic Nerve, and treats of Amblyopia, Amarosis, Hæmianopsia, Diseases of the Lachrymal Apparatus, Refraction, etc. Prof. Noyes and Dr. J. E. Weeks take up Cataract, Glaucoma, Strabismus, etc. Dr. Gorham Bacon, Aural Surgeon to the Orthopedic Hospital, New York, contributes a very satisfactory article on the Surgery of the Ear. Prof. Hardaway, of St. Louis, writes most instructively on the Surgical Diseases of the Skin. Of the articles by the general surgeons, one by Prof. White (Philadelphia) will be particularly interesting, as it is on a subject which is at present attracting much attention, viz.: Castration for Prostatic Hypertrophy. The remainder of the articles are also up to the standard of those of the first two volumes, and the same may be said of the printing and illustrations. Altogether, we are satisfied that this third volume will be as satisfactory to the subscribers as either of the other two.

THE PRINCIPLES AND PRACTICE OF MEDICINE. By WM. OSLER, M. D., Fellow of the Royal College of Physicians of London; Professor of Medicine in the Johns-Hopkins University; Physician-in-chief to the Johns-Hopkins Hospital. Second edition. New York: D. Appleton & Co. Cloth, pp. 1,143. 1895. For sale by Popular Book Store, 10 Post St., San Francisco.

In our notice of the first edition of this work we predicted that a second edition would soon be called for. We felt very sure that teachers would recommend it as a text-book for students, and that the more advanced practitioners would gladly avail themselves of the opportunity to procure a work that is at once scholarly, scientific and practical. Although the first edition appeared less than two years ago, so progressive is the science and practice of medicine that the editor required much labor to keep it up with the times. The chapter on Typhoid Fever required a thorough revision; he has no confidence in intestinal antiseptics for typhoid fever; that on Malarial Fever has been in a great part rewritten. The article on Diphtheria has been entirely recast and extended from eleven pages to twenty. The author advises the antitoxin treatment, has confidence in it, but thinks it requires to be still further tested; he has also carefully rewritten the articles on Septicemia and Pyemia. A short chapter has been added on Bubonic Plague and on Foot and Mouth Disease and on Infantile Scurvy and on Hemorrhagic Diseases of the Newborn. Most of the chapters have been added to or rewritten. The work is made up of eleven sections, as follows: 1. Specific Infectious Diseases. 2. Constitutional Diseases. 3. Diseases of the Digestive System. 4. Diseases of the Respiratory System. 5. Diseases of the Circulatory System. 6. Diseases of the Blood and Ductless Glands. 7. Diseases of the Kidneys. 8. Diseases of the Nervous System. 9. Diseases of the Muscles. 10. The Intoxications; Sunstroke; Obesity. 11. Diseases Due to Animal Parasites. We have real pleasure in recommending this work to our readers in general, as a text-book and to the medical students of the University of California.

AN AMERICAN TEXT-BOOK OF OBSTETRICS FOR PRACTITIONERS AND STUDENTS. By various authors. RICHARD C. NORRIS, M. D., Editor; ROBERT L. DICKINSON, M. D., Art Editor. With nearly 900 colored and half tone illustrations. Philadelphia: W. B. Saunders, 1895. Cl. pp. 1,009. Price, $7.00. For sale by subscription only.

This work on obstetrics is a companion to the American system of surgery and the American system of gynecology. It is gotten up on the same co-operative plan. In this work, however, the table of contents indicates the authorship of each section; in the other works the individual authorship of any particular article is not known. In the matter of paper, printing and illustrations, this work is far ahead of its companions. In fact it is probably not too much to say that no medical book in this country is so beautifully and artistically illustrated. From an artistic point of view this may be almost considered a new departure in medical book-making. As a text-book we are sure that it will give great satisfaction to teachers, students and practitioners. The book will be looked upon in Europe as a credit to the American medical profession. While every writer is conservative and dignified, each contribution is fully abreast in its treatment of the science and art of obstetrics. Every contributor is a well known teacher in an American Medical College. The profession is under great obligations to the publisher—Saunders, and will no doubt acknowledge the obligation by calling for a large edition. He deserves the thanks and the patronage of the profession.

HANDBOOK OF THE DIAGNOSIS AND TREATMENT OF SKIN DISEASES. By ARTHUR VAN HARLINGEN, Ph. B. (Yale) M. D., Emeritus Professor of Dermatology in the Philadelphia Polyclinic; Dermatologist to the Howard Hospital. Third edition, revised and enlarged, with sixty illustrations, some of which are in colors. Price, $2.75. Philadelphia: P. Blakiston, Son & Co. 1895. For sale by Popular Book Store, 10 Post street, S. F.

Those of our readers who are acquainted with this handbook will welcome this third edition. The author has found it necessary to rewrite a goodly portion of the book. He has added foot-notes to make the work more valuable as a reference book and has added a number of new illustrations. The chapter on Tuberculosis has been entirely rewritten. This was necessitated on account of a better knowledge of the bacteriology of tuberculosis; in fact, many of the changes made in other chapters were on account of recent knowledge in the field of bacteriology. The bacteriologic expert of dermatology has in many instances also greatly modified the treatment. Altogether, the author has been at great care to bring this third edition abreast of the times. The author's plan of alphabetically arranging the diseases has its advantages and disadvantages. We are quite sure that this handbook will continue to fill an important place in the necessities of the student and general practitioner.

GRAY ON NERVOUS AND MENTAL DISEASES. A treatise on nervous and mental diseases by LANDON CARTER GRAY, M. D., Professor of Diseases of the Mind and Nervous System in the New York Polyclinic. New second edition in one very large handsome octavo volume, 728 pages, with 172 engravings and three colored plates. Cloth, $4.75; leather, $5.75. Philadelphia: Lea Bros. & Co., Publishers, 1895. For sale at the Popular Book Store, 10 Post St., San Francisco.

The first edition of this work was well received by the profession generally, teachers found it an excellent text-book for their students and physicians appreciated it for the assistance it afforded them. What the author has done to make this second edition worthy of the continued favor of teachers and practitioners is best set forth in his own words. "Every portion has been carefully revised and five new chapters have been added, viz: those on dementia, dementia paranoides, confusional insanity, delirium and massage. The anatomical introduction has been entirely rewritten in response to many requests for a more detailed description of this subject, and also in view of the fact that our knowledge of cerebral and spinal architecture has been literally revolutionized in the last few years. In the chapter on paralytic dementia, the pathological portion has been rewritten to conform with the newer views that are based upon the discoveries of Golgi and Cajal in cerebral histology, and partly upon our wider knowledge of textural stains. The chapter dealing with palmus is almost new, and details my further experience with this disease." It is very evident that the author has been at great care to keep this work up to date. The paper, typography and illustrations, some of them beautifully colored, are all that can be asked for in medical book making.

SUPPLEMENT TO THE INTERNATIONAL ENCYCLOPÆDIA OF SURGERY. Edited by JOHN ASHURST, JR., M. D., LL. D., Philadelphia. One royal octavo volume of 1,136 pages, illustrated by numerous wood engravings and chromo-lithographic plate. Cloth, $7.50; leather, $8.50. To subscribers to the entire set—cloth, $6.00; leather, $7.00; and half morocco, $8.00. New York: William Wood & Co. For sale at the Popular Book Store, 10 Post St., San Francisco.

This volume is supplemental to the International Encyclopædia of Surgery (in six volumes). Although the system was revised seven years ago, so rapid has been the progress of the science and art of surgery during these past seven years, that it became necessary to revise the whole six volumes, or add, as the editor has done, a new volume. The book is made up of a

series of chapters by forty-eight contributors. This volume, in addition to being a most excellent and necessary supplement to the great system of surgery, is a valuable surgical work even for those who do not possess the system. It pretty well covers the whole field of surgery as will be seen by the subjects treated as follows, viz.: Inflammation, wounds and wound treatment, diseases complicating wounds, gunshot wounds, poisoned wounds, hydrophobia, scrofula and tuberculosis, rachitis, abscesses and ulcers, gangrene and gangrenous diseases, anesthetics and anesthesia, amputations, tumors, venereal diseases, gonorrhœa, the simple venereal ulcer or chancroid, syphilis, surgical diseases of the skin and its appendages, diseases of cellular tissue, injuries of blood vessels and aneurism, surgical diseases of the vascular system, injuries and diseases of the lymphatics, injuries and diseases of the nerves, injuries and diseases of bursae, injuries of bones, diseases of the bones, injuries of the joints, diseases of the joints, excisions and resections, orthopedic surgery, injuries of the head, surgical diseases of the head, injuries of the back, diseases of the spine, injuries and diseases of the eye, injuries and diseases of the ear, etc. Like the other volumes this one is printed on good paper and well illustrated.

A MANUAL OF SYPHILIS AND VENEREAL DISEASES. By JAMES NEVINS HYDE, A. M., M. D., Professor of Skin and Venereal Diseases Rush Medical College, Dermatologist to the Presbyterian, Michael Reese, and Augustana Hospitals; and Consulting Physician to the Hospital for Women and Children, Chicago; and FRANK H. MONTGOMERY, M. D., Lecturer on Dermatology and Genito Urinary Diseases, and Chief Assistant to the Clinic for Skin and Venereal Diseases, Rush Medical College; Attending Physician for Skin and Venereal Diseases St. Elizabeth Hospital, Chicago. With 44 illustrations in the text and 8 full page plates in colors and tints. Price, $2.50. Philadelphia: W. B. Saunders, 925 Walnut St. 1895. For sale at Popular Book Store, 10 Post St., San Francisco.

In preparing this manual the authors have kept steadily in view the needs of the general practitioner and student. Their aim has been to give a concise but fairly comprehensive account of all practical facts connected with the study and the treatment of syphilis and the venereal diseases. While they have intentionally avoided all points in controversy, they have been careful to state clearly the most undisputed advanced ideas in regard to the etiology, pathology and treatment. They state very emphatically that gonorrhœa and soft chancre are not always purely local diseases as contrasted with syphilis, which has always been conceded to be constitutional. There are few practitioners who have not seen cases of gonorrhœa and soft chancre which have been far reaching in the results on the system, such as rheumatism, cachexia, etc. We are sure that this manual will give satisfaction.

URINALYSIS. Including Blanks for Recording the Analysis and Microscopic Examination of the Urine. For Medical Practitioners, Life Insurance Examiners, and specialists. Arranged by JOSEPH C. GOURNSEY, A. M., M. D. Philadelphia: J. B. Lippincott Co., 1895. For sale at Popular Book Store, 10 Post St., San Francisco.

Hundreds of physicians do not trouble themselves to examine the urine, and still fewer keep any record of their examinations. With this book in their possession they would not only be reminded to examine the urine but to record the result of their examination. The work consists of an epitome of urinalysis and 500 blanks for recording the result. It is indexed to make it convenient to turn to a patient's name at any time. We can most heartily recommend it as we have experienced its convenience and value, having used one similar to this for several years, which we had made.

THE AMERICAN ACADEMY OF RAILWAY SURGEONS. Official report of first Meeting held at Chicago, Ill., Nov. 9th, 1894. Edited by R. HARVEY REED, M. D., Columbus, Ohio. Chicago American Medical Association Press, 1895. For sale at the Popular Book Store, 10 Post St., San Francisco.

Since so many people are injured annually and every railroad must have its surgeons, railway surgery has become an important branch of practice. If the American Academy of Railway Surgeons will compel the corporations to remunerate medical men as fairly and liberally as the railway attorneys are paid, the academy will be of inestimable service to the medical profession. The following are the officers: President, C. K. Cole, M. D., Chief Surgeon, Mont. Cent. Railway, Helena, Montana; first vice-president, C. M. Caniels, M. D., Chief Surgeon, W. N. Y. and P. Railway, Buffalo, New York; second vice-president, W. H. Elliott, M. D., Chief Surgeon, Cent. Railway of Ga., Savannah; Ga.; secretary, Webb J. Kelly, M. D., Division Surgeon, Erie Railway, Galion, Ohio; treasurer, C. B. Kibler, M. D., Surgeon Erie Railway, Corry, Pa.

Therapeutic Notes.

Neoplasm in the Stomach.

In reporting the case of a woman suffering from neoplasm in the stomach, Dr. Ernesto Costa, of Alagna, Italy, says: "One can easily imagine the intense pain which entirely prevented her sleeping. I tried chloral and sulfonal, and although the latter answered fairly well for a time, it soon became necessary to discontinue it. I then administered bromidia with the following results: 1. It produced refreshing sleep. 2. It soothed the pain and thus rendered alimentation possible. 3. Although given in frequent, and sometimes in tablespoonful doses, it never produced any nervous or cardiac disturbance."

Six Hundred ($600) Dollars in Prizes.

The special attention of our readers is called to the advertisement of the Palisade Manufacturing Co., with the above title in this issue.

The prize contest which this well known firm announces will no doubt attract a great deal of attention, and result in the submission of many articles of merit on "The Clinical Value of Antiseptics both Internal and External." The prizes are extremely liberal, and the well known professional and literary eminence of Dr. Frank P. Foster, the talented editor of the *New York Medical Journal*, who has kindly consented to act as judge, is a sufficient guarantee of the impartiality to be observed in the awarding of the prizes.

We are assured that there is absolutely "no string" attached to the provisions of this contest, and any physician in good standing in the community is invited to compete on equal terms with every other competitor. Further particulars as to conditions, etc., can be obtained by addressing the above named firm.

For Contusions.

The following ointment will be found to be soothing, healing and antiseptic in bruises:

℞	Cocainæ hydrochloratis	ʒss
	Pulv. camphoræ acidi carbolici āā	℈ii
	Resorcin	ʒi
	Zinci oxidi	ʒiv
M.	Lanolini petrolati ää grs	℥iv
	et ft. ung.	

Sig.—Apply every three hours.

A.

Peroxide of Hydrogen.

By J. P. Parker, Ph. G., M. D., of St. Louis, Mo.

Published by the Annals of Ophthalmology and Otology, of St. Louis, Mo., April, 1895.

(Abstract from *The Times and Register*, June 8th, 1895.)

I have used peroxide of hydrogen quite extensively for cleansing discharging ears, the nasal and accessory cavities, and have tried all the brands of the preparations in the market, and once thought one manufacturer's make as good as that of another, and bought the cheapest as a matter of economy, but recent experience has taught me that the difference in quality is greater than the difference in price. After an unpleasant experience with a solution of peroxide of hydrogen which severely injured the mucous membrane, I bought and examined, chemically, a bottle of each preparation of H_2O_2 in the market, and was surprised to find so much difference. Some are useless, and others worse than useless because they contain too little available oxygen and too much free acids (phosphoric, sulphuric, hydrochloric). I now order Marchand's (medicinal) exclusively because I find it contains the desired quantity of available oxygen and not enough free acid, to be objectionable, and its keeping properties are all that could be desired.

By inquiry I learn that Marchand's is the preparation that is used by almost all surgeons, and it is considered by them the standard.

[My personal experience with peroxide of hydrogen confirms entirely the statement of Dr. J. P. Parker. I have used exclusively Marchand's brand until lately, when I experimented with hydrozone. Then I gave up entirely the use of peroxide of hydrogen and use hydrozone on account of its strength, which cannot be compared with any other brand, even Marchand's. I must say that the results which I obtained with hydrozone are most gratifying.—Ed.]

Samples for Testing.

Battle & Co., St. Louis.—Some time ago you sent me specimens of your preparations of Bromidia, Papine and Iodia. Unlike many who send out specimens you sent an amount large enough to really make a trial with. I had used the two first-named a little, but having them more forcibly brought to mind, and recognizing the fact that I had them on trial, I watched their action more carefully. I can say that they are both elegant and health bearing. Bromidia I used on a man verging on mania a potu. Papine on a nervous typhoid woman, and Iodia on a young man, who had carried boils for three years as the result of ivy poisoning. The preparations were a decided success in every instance. Yours truly, E. C. ADAMS, M. D.

Watertown, S. D., Dec. 10, 1895.

A New Antipyretic.

By RUEL S. GAGE, M. D.

My attention has been called to a compound manufactured by the Maltbie Chemical Company, Buffalo, N. Y., which they have trade-marked 'Zomakyne.' Of course we are always glad to try any new thing which promises us help in the treatment of complaints where pain and elevation of temperature are prominent symptoms, and I was glad to add to my list of coal-tar derivations, with their many combinations, this one more which came to me so well endorsed by those who had given it a thorough trial. My experience with Zomakyne has been most satisfactory, proving to me by almost daily attestation that this compound has made a decided hit, and given to the medical fraternity a remedy of more than ordinary therapeutic value, and one that has come to stay. The cases in which I have given Zomakyne preference over all other kindred preparations have been neuralgia, rheumatism, severe and persistent cases of migrane and la grippe. As an antipyretic it has been of great value in many cases; one case of most distressing pain in the head which has for years baffled all the analgesics, except morphine and codeine (which has been occasionally used), is now satisfactorily controlled by Zomadyne, ten-grain powders being given every three hours and oftener when occasion requires, with no bad effect upon the heart. Relief always follows the first dose. Have occasionally administered a half drachm aromatic spirits ammonia with powder with good effect. A case of locomotor ataxia, with frequent and severe tabetic pains and cramps in the limbs, is kept comfortable by a ten-grain powder or capsule given as needed. The cases of dull headache with pain through the eyes, combinations of rheumatism and malaria, and the 'all-gone, tired-out' feeling are relieved by five grains each of Zomakyne and quinine in a capsule every four hours. In acute rheumatism, where pain and fever are prominent, Zomakyne ten grains, with Dovers powders, five grains, given every three hours, fulfils every indication. This same combination is an ideal one in cases of la grippe where nasal, naso-pharyngeal and aural symptoms are prominent. In the cough of phthisis, so difficult to control, Zomakyne, three to five grains, with codeine, $\frac{1}{8}$ to $\frac{1}{4}$ grain, given every hour or two as needed, will seldem fail to give relief. So we could multiply cases indefinitely where this invaluable friend has rendered us most efficient service, and when pharmacy comes to our relief with a remedy such as Zomakyne, so entirely safe, and so certainly curative, and so reasonable in price, we should not withhold our praise, and I am glad to acknowledge my indebtedness to the Maltbie Chemical Company for this special contribution to the physician's outfit.

THE readers of the PACIFIC MEDICAL JOURNAL have the privilege of accepting an extremely liberal offer by the Maltbie Chemical Co., Buffalo, N. Y., whose preparations are already favorably known to a large number of physicians. As their arguments are convincing the offer will no doubt be generally accepted. Their Zomakyne (formerly Caffenol, Maltbie's) is particularly valuable as non-depressing, coal-tar remedies are what all physicians are after.

Analgesia and Sedation—An Essential Adjunct to Treatment.

By JOHN J. SULLIVAN, M. D., University of the City of New York.

On account of the frequency with which pneumonia in late years is accompanied with grippal symptoms, the treatment, to a great extent, has been modified or changed. The essential features in the result desired are a diminution of the pain and a lowering of the temperature. Opinions differ as to whether a reduction of the temperature influences the course of the disease, but a concensus of opinion is that *antipyretic* treatment is distinctly called for in the beginning, and an analgesic at all times, if needed to assuage suffering. *The antipyretic should be antikamnia, and the analgesic is supplied by codeine and antikamnia together.* This is given every three or four hours in tablets containing $4\frac{3}{4}$ grains antikamnia and $\frac{1}{4}$ grain codeine, throughout the period of congestion and consolidation. Where there is great restlessness, this will have a delightful effect.

In the nocturnal pains of syphilis, in the grinding pains which precede labor, and the uterine contractions which often lead to abortion, in tic-douloureux, brachialgia, cardialgia, gastralgia, hepatalgia, nephralgia and dysmenorrhœa, immediate relief is afforded by the use of this combination, and the relief is not merely temporary and palliative, but in very many cases curative.

In the neuroses of the respiratory organs, great relief is afforded by the use of this combination. A paroxysm of asthma is often cut short by a full dose; hay-fever or autumnal catarrh is benefited by its use.

In the harassing cough of phthisis, or in the pain of pleuritis, in the painful sensations accompanying bronchitis when the tubes are dry and irritable—as they usually are—the blending of codeine and antikamnia will not be found wanting in its action, but will give results that are gratifying to both the patient and the medical attendant. As a producer of sleep it will be found efficacious. This is doubly true when there is great nervous excitement.

In pulmonary diseases this combination is worthy of trial. It is a sedative to the respiratory centers in both acute and chronic disorders of the lungs. Cough in the vast majority of cases is promptly and lastingly decreased and often entirely suppressed. In diseases of the respiratory organs, pain and cough are the symptoms which especially call for something to relieve; this tablet does it, and in addition controls the violent movements accompanying the cough, and which are so distressing.

This combination is the remedy for diabetes and is superior to any other in diminishing the quantity of sugar in the urine, and also in diminishing the quantity of urine itself in diabetes mellitus. The bulimia and polydipsia are lessened by its use, and probably the changes in the nervous system which accompany or are causative of the disease, are arrested or prevented. It also prevents waste. It controls restlessness; it relieves insomnia; it relieves distressing nervous symptoms. It relieves the craving of the stomach, and lessens the frequency of the calls to urinate.

It is not claimed that the combination will cure diabetes mellitus, but there will be, in many cases, arrest of the disease, with prolonged periods of good health, and cure in some cases.

THE Antikamnia Chemical Co. has sent out a very useful souvenir in the shape of a black morocco pocket note-folder and card-case.

PACIFIC MEDICAL JOURNAL.

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Original Articles.

SOME CASES IN ETHICS.

By S. S. HERRICK, M. D.

(Read before the San Francisco County Medical Society, Dec. 10, 1895).

Madame de Rémussat relates in her memoirs that, in the year 1809, it was seriously designed to uphold the Napoleonic dynasty by the imposition of a fictitious child of Josephine. She states that the scheme was proposed to Corvisart, then Court physician, and that he declined to take part in the deception. Other authorities declare that Josephine herself was averse to the project, although its accomplishment would have averted the divorce, as was intended.

It is reasonable that the story is well founded, and more probable that the chief opposition should have come from Corvisart than from Josephine. Corvisart had been made a baron by Napoleon in 1802, and had good reason to look for higher honors and wealth with the success of this stroke. His position implied attachment to the empire, and both self-interest and patriotism must have argued for its preservation. We may therefore conclude that he valued personal integrity more than rank, riches and the blandishments of his sovereign, and had the firmness to say no to one whose displeasure had been disastrous to others before.

The case of Crown Prince Frederick (afterward Emperor Frederick III.) belongs to our day. It is not my purpose to revive any disputed questions which caused so much acrimony between Morell Mackenzie and the German surgeons in 1887 and 1888, nor to view the history of the case. Whatever one may think of the propriety of excising Frederick's larynx in May, 1887, as was proposed by his medical advisers at home, I assume that few now doubt that Mackenzie was already satisfied of the malignant nature of the growth, though microscopic confirmation was not obtained for nearly a year later. The general belief is, that Mackenzie's utterances were governed by his willingness to subserve the interests of Princess Victoria, wife of Frederick, and oldest daughter of his British sovereign.

The old Prussian law, that excludes the heir apparent from the succession, if he be already affected with an incurable malady when the throne falls vacant, threatened the future status of the princess. Were Frederick emperor for a day only, she would have the dignity of empress-dowager after his death, with all that appertains to the rank: were he debarred by a positive medical diagnosis, she would be only the prince's widow. There is no reasonable doubt that Mackenzie's firm adherence to a position which he must have known to be ill-founded prevented Frederick's exclusion from the succession; and it is equally probable that his skill preserved his patient's life long enough to enable him to reach the throne and hold it for three months.

Dr. Mackenzie was knighted by his sovereign in 1887, presumably in recognition of services to her son-in-law and daughter. He died in February, 1892, and is said not to have amassed a fortune, though he was the foremost man of the world in his specialty of throat maladies. Perhaps this is the reason why he was not made baronet instead of knight; but the deficiency for sustaining the higher rank might have been supplied by the parties most benefited, had gratitude not been eclipsed by the parsimony characteristic of the two Victorias.

Those who agree with Robert Walpole, that every man has his price, must hold that Corvisart's cost was above the bid of Napoleon, who was never accused of meanness with those who served him; also that Mackenzie's rate was low, unless he was disappointed in his reward, of which no complaint has reached us.

The matter at issue in 1809 was, out of measure, more important to Napoleon, to Josephine, to France, to the world, than the affair of 1887 to Frederick, to Victoria, to Germany and the world. May we not conclude that the characters of the two medical actors in these dramas correspond in greatness?

Now reverse them! Put Mackenzie in the service of Napoleon in 1809, and Corvisart in that of Frederick in 1887; France today might be ruled by Napoleon III., reputed grandson of the first Napoleon and Josephine, and certainly there would have been no Frederick III. of Germany.

The following occurred between 1875 and 1880. Mr. W., residing in Texas, after marriage with the lady of his choice, found an invincible obstacle to marital intercourse, and applied to his long-time friend, Dr. X., of New Orleans, for certain information. Some years previous this lady had been brought by her mother to that city for examination at the hands of Drs. Y. and Z., and Dr. X. learned from Dr. Y. that it disclosed absence of the vagina and uterus. There was no attempt at operative relief. This information was given by Dr. Y. without hesitation or reserve, and communicated by Dr. X. to his friend. Drs. Y. and Z. were not noted as sticklers for the code of medical ethics.

Dr. X. once raised the question of observance of professional secrecy concerning patients in the Medical Society at New Orleans, and made reference to this case. The point was whether he could have given this information directly to his friend, before or after his marriage, in case he had made the examination himself. According to my recollection there was no decided expression on the subject, except from a certain professor, who held that a doctor must keep his mouth closed concerning his patients; still I suspect that the professor himself would have managed to give some sort of warning to a friend, if he saw him walking unsuspiciously into such a trap. Of course it would be neither necessary nor proper to go into particulars.

Though it is aside from our subject, it may be added that Mr. W. died in 1880, and his widow married again a few years later. Dr. X. has not heard how she has fared with her second husband.

The last instance for consideration occurred in San Francisco. About five years ago, Dr. X. was called at 1 A. M. by Mr. Q. to attend his wife for alleged opium poisoning. He obeyed with alacrity and found the woman too deeply narcotized to be roused, and a partly emptied vial of laudanum in evidence. The doctor looked for the usual signs in the breathing and pupils of the eyes, but failed to find any confirmation whatever, although she was supposed to have swallowed the drug several hours before. Still he took the precaution to obtain from the nearest apothecary a solution of atropine for hypodermic use. After keeping the woman under observation for an hour and a half; he was mentally satisfied that it was a case of simple drunkenness. Then instructing Mr. Q. how to observe the breathing and eyes, and charging him instantly to report any sign of opium poisoning, he took leave, without hinting his conviction of the true nature of the case, out of regard to the feelings of strangers.

On returning the next morning, he found Mrs. Q. wide awake, and was informed that they had sent for their usual medical attendant, Dr. V., who treated her vigorously and succeeded in saving her life. A short time afterward Dr. X. wrote to Dr. V. for an account of this interesting case, and having received no reply, called on him in person. Then he was assured that the usual symptoms had been found, viz., slow, *shallow* [sic] breathing and narrow, contracted pupils. His mode of treatment was not asked or stated; but it was learned from one of the neighbors, without asking, that Mrs. Q. was in the habit of "rushing the growler."

In due time Dr. X. presented his bill, and was informed that it would not be paid, inasmuch as he had rendered no service. Several questions have vexed our minds in this connection, which we have not been able to answer clearly, and I hope members of this Society may give aid:

1. Was Mr. Q. ignorant of his wife's familiarity with the cup which cheers and inebriates?

2. Even admitting that Mr. Q. may have believed this domestic drama to be intended as a tragedy for his special enjoyment, could Dr. V. have failed to recognize it as a comedy? In other words, was he as shallow as he described Mrs. Q.'s breathing to be?

3. Was not Dr. V. wise in his day and generation, in forwarding this neat play to a happy ending, wherein all the characters, except the other doctor, were delighted with each other, and whereby his renown and purse were expanded?

4. Was not Dr. X. a blockhead for neglecting and losing the opportunity?

5. Should the proverb, "Honesty is the best policy," be interpreted in contrary sense, like dreams; or was it intended for young children, like another familiar one: "The nearer the bone, the sweeter the meat?"

6. Finally, is not virtue its own reward?

The foregoing actual occurrences are given with the view of evoking discussion, and not of using them as text for a homily.

P. S.—The writer hoped that a discussion would follow the reading of the above, which might, approximately, at least, determine the value of the several known and unknown quantities introduced. The Society was well represented numerically, but made about the same contribution to knowledge as we find in that celebrated treatise entitled, "The Snakes of Ireland."

In this pointed appeal to a larger tribunal it is hoped that some readers may be sufficiently interested to give utterance to their views.

HEREDITY.

By W. S. SNEDIGAR, M. D.

(Read before the San Joaquin County Medical Society, Nov. 29, 1889.)

GENTLEMEN:—In presenting this paper to you this evening it is not my purpose to advance any new theory on the subject of heredity, nor to combat any of the views which have heretofore been set forth. I propose, simply, to enter into a review of the subject, and present to you the ideas and conclusions I have attained from my studies, and from my limited observations.

The subject of heredity is one that should engross our strictest attention in the practice of our profession, for, on it alone, often are we enabled to base a diagnosis, and often a prognosis of very many disorders. It plays an important role, not only as regards the physical condition of man, but also as regards the moral and social man. But to us, as practitioners of medicine, belongs the duty, chiefly of investigating heredity as regards the physical man, which appears to me to be the most important. For, improve the condition of physical man, eradicate the pathological and morbid tendencies that control him, and the moral and social man must follow, just so sure as darkness succeeds the light of day.

In its broadest sense heredity signifies that law or influence by which individuals transmit to posterity those traits and characteristics that characterize the species to which they belong. The law that like produces like is nothing more nor less than heredity. It is seen in the lowest forms of life as the infusoria, the only characteristic which they inherit being that they are like their predecessors and endowed with the same quality of producing others like themselves, having the same characteristics. As we follow up the higher planes of life we behold the same law governing all forms, viz., the law of heredity, like producing like, in the animal and vegetable kingdoms.

I do not propose, this evening, to enter into a minute discussion of the biological laws of heredity and reproduction, though it would prove a most interesting field, but to consider it from a practical point of view as regards the human family.

The definition, then, of heredity, practically considered, is the inheritance of certain qualities or tendencies; the transmission of certain physical and mental traits or characteristics, from ancestors to descendants, which serve to distinguish a few from the main body of their associates. We cannot say that these traits or characteristics came into existence by accident, nor that they made their appearance without cause. There must be some underlying cause or principle and this we maintain is that law or influence known as heredity. The child at its birth is nothing more than a piece of living humanity endowed with but one propensity, apparently, and that is of keeping its appetite appeased. As it grows day by day we observe its hereditary influences manifesting themselves, and were it not for the power of acquiring characteristics it would go through life controlled only by its hereditary influences.

Depending upon the laws of heredity we can eradicate or promulgate certain tendencies or traits by combating with an opposite or enforcing with a like trait, by means of mating different individuals. Advantage is taken of this by the breeder of horses, cattle and swine. By mating the individuals possessed of different traits and characteristics he can produce an animal almost to suit his fancy. Were it possible to take advantage of the same law as regards the human family, who could conceive of the race of a few generations hence as compared to our own! But since man is the highest in the scale of creation, and no one to coerce him to the realization of better breeding, it falls to our lot to try to accomplish by education, what the breeder does by his power over his animals.

A great variety of characteristics, mental and physical traits, and peculiarities, is made apparent to our daily observations, not alone in the observance of diseases, but in the casual observance of our friends, family, acquaintances, business associates and strangers whom we meet upon the street, all due to that wonderful law of heredity. Here is a man with a crooked nose, to whose family has belonged the same peculiarity many generations remote. Here is a corpulent man whose family ties shows a succession of corpulent men and women. Here is a person with a characteristic gait; there, one with a peculiar eye, or perhaps stature is the peculiar inherited quality. Here is a family noted for strong mental attributes; there one in which mentality is lacking. Here is a spendthrift family; there a miserly one. Here is a family the members of which are noted for strong business integrity; there, one in which failures in business mark successive generations. Virtues and vices may appear, due to the same law.

Certain tendencies and peculiarities may be inherent throughout an entire race, as, for instance, the Hebrew race which is noted for its ability and fondness for commercial pursuits and a certain marked physiognomy. Space and time would not permit the enumeration of the many different traits and peculiarities that could be mentioned along this line, existing in the human family and all due to hereditary influences and the manner of commingling them.

We turn now to the discussion of heredity as regards its relation to diseases. That certain diseases are influenced by heredity there can be no doubt, but as to the manner, and the degree to which heredity is responsible, there is a considerable difference of opinions. Under the head of hereditary diseases we may include gout, cancer, scrofula, goiter, cretinism, rheumatism, scaly skin diseases, epilepsy, insanity, chorea, hysteria, asthma and syphilis as being the most important. Tuberculosis and leprosy were at one time considered directly hereditary, but owing to the advancement and improvement in the method of research in the science of bacteriology, they are now considered non-hereditary. However, this is a much mooted question and many there are who still maintain that consumption and leprosy are inheritable. But owing to the fact that both disorders are due to a bacillus (and this fact we must all admit) entirely foreign to the body at birth, for congenital tuberculosis and leprosy are unknown, we must look farther for the cause of these diseases running through entire families. The conclusion now arrived at, and the most generally accepted view, is, that the disease transmits a tendency, which means, that children born of tuberculous parents, inherit a condition of the physical system favorable to the reception and nourishment of that germ which produces consumption.

Rheumatism too, in my opinion, falls in the same category as consumption and leprosy. Although not due to a bacillus like the former maladies, one of its many given causes is a hereditary predisposition, the unsupported opinion of many writers, and most certainly the popular notion of it. It is not a disease of early childhood, but may attack the young as well as the old. The youngest case on record was in a child one month old, and only a few days since I saw a child of four years suffering with rheumatism. The disease is a condition of the system, one of tissue degeneration, and the liability may be handed down from father to son, and the surroundings, climate, exposures, etc., tend to develop that condition into a well-marked case of rheumatism.

Gout, which is closely allied to rheumatism, may have the same said of it. Older authors spoke of gout as strictly hereditary, and it held a high place in the esteem of certain of the aristocracy as evidence of eminent respectability and well-to-do people. The fact of gout being in one's family was boasted of to such an extent that the lower classes became afflicted with what was termed poor man's gout, and a reversion among the aristocracy resulted and those whose family tree showed the blight of gout endeavored to cover up the blemish in spite of its recurrent habit. Whether the disease is hereditary, or whether the habits and surroundings being the same in successive generations tended to produce it are questions of importance, and we may answer by saying that both are responsible. That heredity is a chief factor is evidenced by the fact that fifty to sixty per cent of all cases of gout can trace their origin to their ancestry. In some cases with a strong hereditary taint it has developed very early in life and has even been seen in infants at the breast. Like rheumatism, gout is also a condition of tissue degeneration due to an acid in the blood and the liability or tendency is inherited, and one of its chief causes is hereditary predisposition.

Goiter and cretinism are both to a marked degree, hereditary, but, as it seems, only in certain localities and under favorable conditions. They are closely allied and it has been said that, "Goiter is only the beginning of what cretinism is the end." Both are confined chiefly to certain localities, cretinism especially so, as in mountainous passes.

Cretinism is so prevalent in the passes of the Alps that it has become to be known as the Alpine disease. These diseases cannot be said to be due to heredity alone except in the localities to which they belong. There must be favorable surroundings as climatic and telluric influences. A cretinitic mother may, and has been known to, bear non-cretinitis children, when removed from the favorable locality. But, notwithstanding this fact, goiter and cretinism are largely controlled by hereditary influences.

Insanity is so strongly hereditary, and the fact is so generally accepted, that we need only mention it without enlarging upon the subject. So also the many neurotic diseases, as hysteria, asthma, etc.

Syphilis also comes under the head of hereditary diseases. This affection, although an acquired disease, becomes hereditary, and is directly transmissible from father to son. But I have no doubt that many of the cases of so-called hereditary syphilis are due to direct contagion and not inherited, having been contracted *in utero*. This is evidenced by the fact that most syphilitic mothers, and women whose husbands have syphilis, miscarry. Still this is not sufficient to prove that it is not hereditary in some manner, and, since the question of syphilitic marrying is so often submitted to us, we must refrain from giving a positive opinion until we can determine to a certainty that the person, or persons, in question have been subjected to proper treatment a sufficient length of time to completely eradicate the poison from the system.

Heredity must also be considered as true and false as regards its influence in disease. Disease is transmitted by heredity with varied intensity in different maladies, and under dissimilar circumstances, in the same malady. A certain disease may be the cause of death of a certain proportion of individuals in the same family for several generations and not be hereditary, the cause being traced to some other origin, as in the surroundings, mode of living, occupation, etc. On the other hand, a disease may be distinctly hereditary in its nature, yet the number of cases resulting may form only a small proportion of the whole so that a non-hereditary disease may assume a false likeness to an hereditary one.

We must now speak of another form of heredity, viz., atavism. This is the name applied to that tendency in animal and vegetable life to inherit propensities and peculiarities from ancestors more remote than parents. Under the influence of atavism the offspring may take on the characteristics of ancestors many generations back, and have no resemblance whatever to parent or grandparent. That the notion of atavism has prevailed for a considerable period of time it is only necessary to mention the biblical version regarding the visitation of the sins of the fathers upon the children of the third and fourth generations. It has been often manifested that in a family whose traits and peculiarities are well-developed and well-known, a prodigy suddenly springs up imbued with some peculiarity unknown to the generation to which he belongs, and possibly to many generations remote. But like the comet which suddenly shines forth upon the horizon of our vision, by tracing its movements we finally find its orbit, so with our prodigy, by tracing his ancestry we find that his peculiarities existed in some of his ancestors generations back. The insanity and blindness of George III was traced to his ancestor Duke William, eight generations remote. Numberless cases might be mentioned of individuals possessed of certain peculiar characteristics due to atavic influence, but owing to the propensity of families to cover up their defects we are often at a loss to account for many things we come in contact with, but no doubt the mystery of many is unveiled when we come to consider them as atavistic and trace them home to their origin.

The question now arises as to which parent transmits the hereditary taint the stronger, the male or the female? Is it the mother whose body produces the home of the embryonic being and which cares for and nourishes it until it has completed its development and endowed with power to perform its own physiological functions? Or, is it the father, from whom springs the seed, which, under the care and nourishment of the ovum from the female, grows into a being endowed with life and possessing traits of both father and mother? I am of the opinion that the male element transmits hereditary taints the stronger. This fact was recognized in biblical times when it was said that the sins of the fathers would be visited upon the children. In the history of gout we never hear a man boasting of his gouty heritage as coming from his mother, but from his father or grandfather. So also many other disorders, insanity and the neurotic diseases excepted, perhaps, are more strongly traceable to the male element.

It may be said that women are not so predisposed to such diseases, as gout, etc., as men, their habits and modes of living not being similar. This only tends to bear me out in my assertion, for most, if not all, diseases, called hereditary diseases, are due to a hereditary *predisposition*. I do not maintain that all hereditary influences are traceable to the male, but the majority. I would account for this in the fact that the male element, the spermatazoon, is the active, and the female element, the ovum, is the passive agent of life. When impregnation takes places the spermatazoon is lodged in the ovum, which supplies it with nourishment, causing it to become a living, active being. The presence of the spermatazoon causes the ovum to give forth its nourishment, just as the seed in the ground causes it to yield up its elements to produce a tree exactly similar to the tree from which the seed fell. But, just as the tree is influenced by the manner of soil from which it grows as regards size, quality and flavor of its fruit, so does the soil from which man is produced influence his after life; though partaking strongly of the seed from which he springs, he in a measure partakes of the soil from which he grows. So we must remember that good seed planted in good soil brings forth good fruit, and our future generations as regards health, morality and wisdom depend upon the influence inherited from their ancestors.

Dr. J. S. Potts, late of San Francisco and San Jose, has gone to Los Angeles, where he has decided to permanently reside.

The next meeting of the Twelfth International Medical Congress has been fixed for August 19th to 26th, 1897. Professor Erisman, Professor of Hygiene in Moscow University, is the General Secretary. The official languages of the Congress will be French and German.

The San Francisco Society of Eye, Ear, Nose and Throat Surgeons at its last meeting elected the following officers to serve for the ensuing year: President, Dr. W. F. Southard; first vice-president, Dr. M. C. O'Toole; second vice-president, Dr. E. R. C. Sargent; secretary, Dr. P. M. Jones; treasurer, Dr. K. Pischl.

We take great pleasure in announcing that the number of subscribers necessary for the issuance of the *Index Medicus* has been obtained. The first number of the new issue of this valuable publication will contain all titles from May 1, 1895, to date. We do not understand why the publishers have limited the number of subscribers to 250.

Sections

MEDICINE.

In charge of SAM'L O. L. POTTER, M. D., M. R. C. P. L.

Brain Tumor Treated by Internal Medication.—At the Clinical Society of London, Dr. Althaus related the case of a lady, aged 39, in whom the unmistakable symptoms of a tumor in the right central convolutions became developed in 1882. The chief signs were severe headache, cranial tenderness, and tympanitic sound on percussion, a change in manner, drowsiness in the daytime, epileptiform convulsions, paresis of the left side of the body with increased tendon reflexes, optic neuritis, impaired memory and inability to think, and sickness and vomiting. The first symptoms had appeared after parturition, and there was a history of a severe blow on the head many years ago, but no syphilitic infection. Treatment by full doses of mercury and iodide of potassium caused rapid improvement, and total disappearance of the principal symptoms in six weeks. Several relapses happened in the course of the following years, at variable intervals, and these yielded to the same treatment as readily as the first attack. The last serious relapse occurred in 1888, and a very slight one, with few symptoms, in September, 1892. Since then the patient had remained quite well, and able to enjoy life. Dr. Althaus had in similar cases seen satisfactory results from similar treatment, but the latter had generally been more protracted than in the present instance. He thought the tumor might have been a glioma, but as it was, fortunately for the patient, never seen or handled, it was impossible to determine its nature. With regard to the diagnosis, he stated that there was no other disease which would produce the whole group of symptoms which had been present, while one and all of these could be easily accounted for by the presence of a growth in the affected portion of the brain. He concluded by remarking that a case like the one related, and in which such ominous symptoms as optic neuritis, epileptiform convulsions, and loss of mental power, were traced to their origin, and removed by acting upon the seat of the malady, not only tended to give us confidence in our power over disease, but also furnished a very clear reply to that therapeutic nihilism which was so frequently paraded by those who did not know how to use the remedies which were at our disposal.—*British Med. Jour.*

Apyrexial Enteric Fever.—Dr. W. Russell of the Liverpool Fever Hospital reports the case of a boy, aged 13, admitted to the hospital as suffering from enteric fever, and presenting the typical typhoid look of prostration, lying on his back with his arms lying loosely by his side. The pupils were dilated and he had a circumscribed flush on each cheek; his tongue was covered with a dirty-white fur. The abdomen was slightly tympanitic, and there were two rose-colored spots disappearing on pressure. There were no lung complications, and all that the patient complained of was a feeling of being tired. There was no diarrhœa at any time during his illness. He was fed solely on milk. The temperature on admission was 100° F.; it fell to normal next day, and remained so for ten days, during which time his tongue was still heavily coated and the typhoid appearance was well marked, when the temperature rose to 103.2°, and he passed about three ounces of blood, his temperature falling in twenty-four hours to normal. Next day there was another rise to 101.4°, and he passed about four ounces of blood, his temperature subsiding to subnormal and continuing so for eighteen days. He was then allowed to sit up in bed, but kept strictly on a milk diet, as his tongue, notwithstanding stomachic medicines, had not perfectly cleared up. Two days later the temperature rose to 101°, and then a typical typhoid temperature continued, with numerous typhoid spots and very foul tongue. Gradually his tongue began to clean, and he was discharged from the hospital four weeks later. The point of interest in the above case was the fact of the patient presenting typhoid symptoms, tongue, spots, hemorrhage, etc., notwithstanding that his temperature remained normal or subnormal, except before the hemorrhage occurred, and after being allowed to sit up in bed.—*Lancet.*

Spinal Lesions in Pernicious Anæmia.—Dr. C. W. Burr contributes a study of this subject based upon seven cases of pernicious anæmia as also several other cases of profound simple anæmia. He is of opinion that these cases prove that the co-existence of pernicious anæmia and certain lesions of the cord is not accidental. The cord was normal in only one of seven successive cases. The localisation of the lesion is fairly characteristic and constant. The cervical swelling is always the seat of the most marked alteration, and the lesion progressively decreases in intensity and extent at lower levels of the cord, till in the lumbar region there is either no disease at all or it is extremely slight. The only parts of the cord affected are the posterior columns, the lateral columns in or near the crossed pyramidal tracts, the direct pyramidal tracts, and (rarely) a band running forward along the circumference of the cord (direct cerebellar tracts). The grey matter is never affected seriously and rarely even slightly. The degeneration of the posterior peripheral roots, when present, is ordinarily so slight as to be of no importance. In the greater number of cases there is marked posterior degeneration with some, but much less marked, degeneration of the lateral columns in and around the crossed pyramidal tracts. The posterior columns may be affected alone, but the lateral never alone. Almost invariably there is a band of normal white tissue separating the diseased area in the posterior columns from the grey matter. Not very rarely there are two distinct areas of degeneration in the posterior columns in the cervical region—one in the postero-internal and the other in the postero-external column, the two being separated by a band of normal or almost normal white matter. In the lower dorsal and lumbar cord the most frequent seat is midway between the posterior median longitudinal fissure or septum and the posterior grey matter. Almost always there is normal white matter between the posterior horn and the diseased area in the lateral columns. The lesion is always symmetrical in the two halves of the cord, often absolutely so, but sometimes descending further on one side than on the other.—*Univ. Med. Magazine.*

Treatment of Epilepsy.—Dr. Lui reviews the result of the treatment of epilepsy according to the methods advocated by Flechsig and Bechterew. Three cases were treated by Flechsig's method, which consists in a preliminary course of opium in gradually increasing doses up to 1.15 gram of the extract daily, followed by bromides in doses of 7.5 to 8 grams daily. During the opium course two of the patients had a slight lessening in the fits, whilst in the third they became much more frequent and intense, so that instead of having two or three a week he had five or six. Severe opium intolerance set in in one case, so that the drug had to be discontinued for a week. With the commencement of the bromide the fits ceased at once, and in one case have not reappeared after four months; in the two other cases the fits reappeared after two months, but much reduced both in frequency and in severity. Bechterew's method—the simultaneous administration of bromides and adonis vernalis and codeine—was tried in ten cases and with diminution of the fits both in intensity and duration in each case. With this method there are none of the inconveniences that are liable to arise from opium intolerance, and on the whole the author is inclined to prefer Bechterew's method. He has little faith in the borax treatment of epilepsy. Guiccardi, in the same review, gives an account of more cases of epilepsy treated after Bechterew's plan. The author concludes that the good effects which follow are due to the bromide and not to the adonis or codeine. It appears to be better borne than a simple bromide and does not produce any ill-effects by reason of the tonic effects on the vascular system due to the adonis. Bechterew's treatment may have an advantage over the ordinary treatment in cases in which there is cardiac debility.—*Rev. sper. di Freniatr.*

The Loeffler Bacillus and Diphtheria.—Dr. D. Hansemann discusses the ætiological significance of the Löffler bacillus, with which factor the scientific basis of Behring's remedy stands or falls. The diphtheria antitoxin can only be looked upon as a specific when it has been demonstrated that the Löffler bacillus is actually the cause of diphtheria. He first considers this subject, and then passes to a discussion of Koch's three postulates in reference to the ætiological significance of a micro-organism. Under certain conditions (*e. g.*, malaria plasmodium, spirillum of recurrent fever), all of these postulates may be laid aside. The most important moment is the constant occurrence of the pathogenetic agent during the active stage of the disease; *i. e.*, it must be present in every instance, and alone, when the patient is affected, and disappear when the disease has run its course. According to this, the Löffler bacillus, as a specific excitant of diphtheria, must be found in every case of diphtheria, but absent in non-diphtheritic cases, and it must disappear after recovery. In clinical diphtheria, *i. e.*, in the classical diphtheria of Bretonneau, the bacillus is absent in one-fourth of the cases; and these cases, with the Löffler bacillus, take a course which is the counterpart of that in those having this organism.

On the other hand, the Löffler bacillus is frequently found in the saliva of healthy individuals who are not subsequently affected with diphtheria; further, they are found for weeks after a cure has been affected, and, finally, in a harmless disease, entirely different from diphtheria, *i. e.*, fibrinous rhinitis. When all this is considered the author denies that the first postulate of Koch (constancy) is fulfilled. Postulate 2, pure culture, may be left out of consideration, as far as discussion is concerned. In reference to the reproduction of the disease by inoculation, the similarity of inoculation-diphtheria to human diphtheria is but superficial. When placed upon the normal mucous membrane, the bacilli act like saprophytes, *i. e.*, are wholly inactive. Upon the injured mucous membrane they produce a fibrinous exudation, which is always confined to the point of application, and never progresses. Hansemann here calls up Ritter's observation, according to which a cat confined in a room with a diphtheria patient contracted diphtheria, but the bacillus of Löffler was absent. In regard to the paralysis which occurs in animals, there is absolutely nothing characteristic in it. While the paralysis accompanying human diphtheria always proceeds from the point of infection, that in inoculated animals is almost always observed in the posterior extremities. Aside from these differences in the membranes, and the paralysis in man and animals, it is plain (1) that the Löffler bacillus does not always produce membranes in man (positive demonstration of bacilli in the absence of membrane), (2) membrane formation occurs without the presence of Löffler's bacillus, (3) paralysis does not always occur in connection with Löffler's bacillus; *e.g.*, it has never been described in any case of rhinitis fibrinosa. Of course, it must be admitted that as yet no case of diphtheritic paralysis has been observed in the absence of Löffler's bacillus.

An important question is that of the bacteriological diagnosis of diphtheria, according to which only such cases as have the Löffler bacillus are to be considered diphtheria. From this method we learn (1) that a part of the cases of severe clinical diphtheria are excluded, because the Löffler bacillus is not found; in these cases notification of the Board of Health, isolation, and disinfection are not required; (2) a large number of mildly affected, or even healthy, persons are isolated, exposed to infection in diphtheria hospitals, kept from school and reported as diphtheria cases simply because the Löffler bacillus had been found in their throats.

Bacteriologists will have to support their statements by more convincing facts, and explain the numerous contradictions and inconsistencies, before the Löffler bacillus can be accepted as the specific organism of diphtheria.—*Virchow's Archiv.*

Solitary Kidney.—Dr. Ballowitz has collected as far as possible all the recorded cases of congenital absence of one kidney. Excluding cases of fused kidney, and of partial atrophy of one kidney, he finds 213 cases of complete absence of one kidney, upon which he bases the following conclusions: Such deficiency occurs almost twice as often in males as in females, a fact which may, however, be partly accounted for by the greater frequency of necropsies on males. As to age, 23 occurred in the fœtus or newly born, most having some other congenital deformity, especially imperforate anus; the rest were about evenly distributed up to 70 years of age, after which only 7 cases occurred. Taking all cases together, the deficiency is more common on the left than on the right side; but while in males the left kidney is far more commonly absent than the right, in females the two sides show the defect equally. The renal vessels were generally absent, as also the ureter, on the abnormal side (the latter in all except 15 cases); the suprarenal was missing in 31 cases. The solitary kidney was almost always normal in shape and position, but much enlarged. Microscopically the enlargement would seem to be due rather to hyperplasia than to hypertrophy. The bladder, except for absence of the opening of one ureter, was generally normal. In a large number of cases there were associated deformities of the organs of generation, especially of the female organs, and these were almost invariably on the side of the renal defect; they affected the conducting portion much more than the glandular portion—that is, uterus, vagina, and Fallopian tubes in the female, and vas deferens or vesiculæ seminales in the male, rather than the ovaries or testicles. Finally, he points out the practical bearing of the subject—for example, the probability of calculus causing sudden suppression of urine in such cases, and also the danger of surgical interference; and suggests the possibility of diagnosing the condition by ascertaining the absence of the opening of one ureter in the bladder by means of the cystoscope; and also the likelihood of its occurring where any abnormality of the genital organs is found, especially if this be unilateral.—*Virchow's Archiv.*

DR. A. O. HASLEHURST has removed to 231 Post street.

GENERAL DEMOGRAPHY AND CLIMATOLOGY.

Under the charge of P. C. REMONDINO, M. D.,
Member of the American Public Health Association, of the American Medical Association, of the State Board of Health of California, and of the Board of Health of the City of San Diego.

The Tropics and the White Race.—Mr. Frederick Boyle, in a late *New Review*, discusses the superior advantages of tropical climates in developing the white race. In that paper he quotes Mr. Bates, the author of "The Naturalist on the Amazon," who believes that "it is under the equator alone that the race of the future will attain to complete fruition of man's beautiful heritage, the earth." Mr. Boyle maintains that a white man can retain and develop both health and spirits by the exercise of independent labor under the equator.

It is to be feared that Mr. Boyle is a philosophical and philanthropic theorist, and a Utopian. Within the past year a gentleman took steamer from San Francisco for Panama. He intended to visit every port of note where the steamer touched. At the first Mexican landing he went on shore, visited the Custom House, Post Office, hotel, and the stores, and thought he had never seen a more contemptibly lazier set of people than the inhabitants. At the next landing he had to make an effort to reach the Post Office, and at the next, after being rowed to the pier, he sat under the awning of the boat until a native wiggled along whom he hired to mail his letters. At the next landing he contented himself by contemplatively eyeing the town from his steamer chair, in the shade of the deck awning, and by the time the next port was reached, he wallowed in such indifference that it was immaterial to him whether there was a town or whether it was a deserted shore. All physical movements and exercise of any kind had through successive lowering latitudes become positive efforts—either extreme will produce the same effects; balloon ascensionists tell us that they experience a faintness on the least physical effort when reaching a certain height. Climates that easily rot shoe leather or take the life out of rubber are not well calculated to encourage a tendency to physical labor.

The average white man is not so wedded to the love of work but that he is perfectly willing to live whenever possible on the industry of another. In ancient times wants were few and labor was in the main unnecessary. The masses of Europe and Asia then lived pretty much the simple life of the Mexican peons of the present. With a higher development, and with the birth of primitive trade and manufactures on the part of the economical and the industrious, there came into existence the robber barons, who preyed on the husbandman, the herder, the burgher, and the merchant. This robber gentry gathered together a miscellaneous lot of kindred spirits, and with these they intercepted all travelers and robbed right and left whomsoever as fell in their way. There was nothing in the climate of Europe to prevent these ancestors of our nobility from working a loom or cultivating the soil, nor from herding cattle or hogs, neither was there anything in the climate to prevent them from tanning their own shoe leather or making their own beer or wine. They preferred to levy a toll on all that came within reach. Such has been the white man from time immemorial. He may change in his details or in the manner of collecting his plunder, but the principle is always the same. Whether it be an unwashed, shirtless and unstockinged ironclad baron of the middle ages with sword and spear, sallying out of his strong castle on the Rhine to rob some passing traveler, or whether it be a political boss in New York or San Francisco arranging his plan of campaign, the principle is all the same, even if the methods do differ—it is the inherited tendency to avoid work and not a seeking for a fruition of our heritage on earth.

Neither the Walhalla of the Scandinavian, or of the Teuton, nor the Paradise of the Saracen, or that of the Christian, say a word about work, and from all this we gather that work—in any climate—is not something that man strives after in great or energetic earnestness, at least, that has been the view of the great philosophers who have conjured up the delights of heaven by most carefully excluding all perspiratory exercises. Man is perfectly willing to enjoy the relaxing luxury of passive perspiration in a civilized Turkish bath or in a barbarous sweating hut, but when it comes to any perspiration due to labor we find that the average man prefers to send a substitute.

So opposed to perspiration as a result of any exertion is man that Mohammed wisely peopled his seventh heaven with fat and sleek houris whose skin and flesh is forever cool. In Africa and in Asia, unperspiring female purchases destined for the harem bring double the price of the perspiring ones. If man's dislike to perspiratory efforts reach such extremes, it is idle for Mr.

Boyle to attempt to colonize the tropics with his like. Theoretically, and in accordance with certain physical laws he is correct, but practically it takes the climatic spur of necessity to well develop man.

Danger from Illuminating Gas.—The many diseases that may arise from breathing a gas-tainted atmosphere should induce the closest supervision of the gas fixtures that supply the house with gas. The danger begins with the mains in the streets, where the modern impervious paving and hard cement sidewalk force whatever gas may escape by leakage towards the porous cellar walls or in the subfloor space where cellars do not exist, and from these places to find its way up into the stores or dwellings. In dwelling upon this subject, the *British Med. Journal* observes that most persons live unaware of the fact that the gas pipes and fixtures of a house are things that wear out, become leaky, and should therefore be overhauled, at least once in a year or two, by a competent plumber. A small leak may exist, so small as not to allow sufficient gas to escape to end in an explosion, but still that very small amount may be sufficient to seriously undermine health. Unfortunately, most persons are unaware of this latter injurious property of gas, and not being aware of this fact they pay but little attention to the possibility of the existence or danger of these leaks unless they are of such magnitude as to permit such an escape of gas as will make itself noticed by its strong smell and the known danger to explosion. Very often a peculiar odor is described as coming from the kitchen or from a too close provision room or closet, when in reality it emanates from a defective joint in the gas pipe or from a small leak as a result of some erosive action upon the pipe; the continued breathing of the air laden with even this small amount of gas tends to produce various derangements of the digestive organs as well as of the nervous system. The injurious ingredient is carbon monoxide. Thorough ventilation is the only safeguard, especially in bed-rooms.

In some hotels and lodging-houses the practice is followed of shutting off the gas every morning at the main house pipe where it enters the meter. This is an economical practice but one that is liable to be attended with danger, as careless persons attempting to light the jet before it is turned on at the main in the evening, give up the attempt after having burned several matches, but often neglect to turn the stopcock so as to shut off the gas. These are fruitful sources of accident to life. Where the gas is so shut off in the morning, an attendant should see that no unlit burner is left open at the moment the gas is turned on again. We have known of several fatal accidents resulting from this neglect.

All houses should have sufficient space under the floor to permit of a free examination of the pipes at all times. One defectively-piped house is liable to jeopardize the health of the residents in the adjoining houses by the transmission of its escaping gas. We have more than once detected a foul odor coming from underneath a building which was so very offensive that when the store was closed, permitted such an accumulation of fœtid gas within the building as to necessitate its ventilation for some time in the morning before the air could be respired with any degree of comfort. It is usual to ascribe such foul odor to street water seepage that has made its way under the building during the rains of summer or in the showers of spring, or to defective sewage pipes. At times this is correct, but the number of such buildings that we have seen so afflicted with a foul ground are depending wholly upon a leaky ground gas pipe that has been corroded by the soil, warrants us in advising that where gas pipes exist under the building, and the air is foul, that the pipes should be carefully inspected.

Gas pipes are often corroded by the moisture in the neighborhood of washstands or sinks, incident to sloppiness or to excessive mopping and washing of floors. For these reasons architects should choose for their gas pipes localities the least exposed to wet or damp, and city engineers should, whenever possible, so arrange their mains that these examinations could be easily made. Gas, water and sewer mains should be located in alleys at all times, and in tunnels easily accessible through man-holes whenever practicable. The long train of ailments—from simple anæmia to typhoid fever and phthisis—that may result from a lowered vitality due to gas or sewer leaks of the most diminutive proportion should be sufficient warrant for the exercise of the greatest caution.

Gas poisoning may exist in various degrees of intensity, from that acute variety which is promptly fatal, to that which is chronic and so light as only to occasion headache and languor. Blood transfusion has been highly recommended by those who have had a practical experience in the cases of acute and vehement gas poisoning, whilst later authorities substitute the saline infusion for the blood. Either of these means seems to offer the only successful means of resuscitating desperate cases. In the slow or chronic variety of gas poisoning, a long course of tonic treatment will be often required; long rest from cares, travel, the mountains or the seashore, sea bathings, and the most easily digested foods being oftentimes absolutely required to restore the slowly lost health.

Blood and Saline Solution Transfusion.—In connection with the subject of the treatment of cases of acute poisoning by illuminating gas, the study of the history of transfusion becomes an interesting therapeutic subject, as several apparently hopeless cases of this poisoning, as well as from that of charcoal fumes, have been made to recover by the timely use of that agent. Cases that failed to respond to the use of electricity and to the application of irritants and to the administration of stimulants, have been rapidly resuscitated by transfusion. After sifting all contradictory evidence—some authorities maintaining that blood transfusion alone is here available—and well weighing all the attendant dangers incident to pure blood transfusion—whether it be arm to arm, or through mediate means, or of natural or of defibrinated blood—we would advise the use of the salt infusion.

The intelligent use of this agent requires three operators and two transfusion or large glass hypodermic syringes. One fills the syringe, the second operator injects its contents under the skin or in the loose areolar tissue of the abdominal region, whilst the third operator, by manipulations and technical massage, favors the rapid absorption of the injected fluid. The tissues in the abdominal wall will readily take up very large quantities of a saline solution, and as much good can be accomplished by that method as by its injection into the veins.

Considering the many uses to which these injections are available, and the many forms of cases where they alone can be of any practical efficacy, we feel that the subject of transfusion is not sufficiently studied or investigated; but for the present we can well remind physicians liable to be summoned in emergency cases, that when called to a case of gas poisoning they had better take along their aspiratory syringes and some pure table salt, as these will be of more avail than all the galvanic batteries or all the diffusible or other stimulants that they can apply or administer.

Paranoiac Murderers.—As observed by Grant Allen, there are epochs of health and ill-health. It would seem as if these periodic conditions were cosmic more than local, national or racial, although of necessity more or less restricted within the temperate zones, and affected the mind as well as the body. Lately a weak-minded individual had decided to kill George M. Pullman and his secretary in Chicago, and foreign papers bring us the account of a like decision on the part of another weak-minded man in Sinigalia in Italy, in regard to a lady and her fifteen-year old daughter, which was actually carried into effect. The Chicago case and that in Sinigalia are singularly alike. In both the weak-minded persons were guided to their decisions by the suggestions of erratic and irresponsible parties pretending to be seers. In the one case the fortune-teller or seer warned its victim that harm was to come to him from two men answering the description of Pullman and his secretary, from which the weak-minded person at once concluded that his own safety demanded the death of the other two persons. How much pointed or direct suggestion was used, whether these suggestions were intentionally criminal, or whether the alleged fortune-teller possessed that degree of intelligence to make it aware of the seriousness or danger of its suggestions we are not told. We only know that an indecision on the part of the too easily launched criminal, as to whom he should first kill, prevented the commission of one if not of two murders.

In the second case, the murderer had been ill, some two years previously, and a fortune-teller had told him that his illness had then been due to sortileges or charms used against him by his two victims whom it would be better for him if out of the way—at least as far as it concerned his health or life. Laboring under this suggested delusion, the party armed himself with a revolver, and as the two women came out of a church walked up to them and discharged the five chambers into their bodies with immediate fatal effect.

In these two cases we find some analogies that connected it with the Hayward Bing case of Minneapolis, although the presence or absence of a motive on the part of the suggestor in the two later cases are not as well defined. If the seers in these can be shown to have possessed no motives whatever in suggesting the murders, they should be locked up as dangerous irresponsibles, unsafe to roam at large. Public safety and the maintenance of good order demands this much. If circumstantial evidence should prove them interested or motived, as in the case of Hayward, then they should be made to suffer the penalties for such cases provided. This would have a very salutary effect in convincing such persons that chiromancy and astrology should restrict themselves within harmless limits. One of these seers who should accidentally happen to be more fool than knave and the dupe of its own erratic imaginings and fully conscientious in its suggestion would be a most dangerous incumbrance to any community, and if not so foolish, then such persons should possess sufficient intelligence to realize the full carrying powers of their suggestions.

One such hanging has often a most salutary effect, and the effects are as often very lasting. The public hanging of William Bennet for murder in 1822, during Governor Bond's governorship of Illinois, for the killing of Stewart in a fair duel, seems to have drawn a chilling pall over all future duelling in that State, and in a like manner the prosecuting of these seers or fortune-tellers might result in some good and end for a time the altogether too reckless suggestions of this gentry.

Glanders in Man.—Dr. H. S. Orme, ex-President of the California State Board of Health, lately read a paper on the above subject before the Southern California District Medical Society, in which he detailed a number of deaths from the above disease as occurring under his observation. The doctor very wisely counsels the establishment of a branch of the Bureau of Animal Industry for the Coast, for the better instruction of the local authorities engaged in the repression of contagious animal diseases. The prevalence of phthisis, carbuncle and of glanders in animals—all diseases or affections which are easily communicated to man, invests the subject with great practical and vital interest, as well as it exhibits the needs of an intelligent and well trained veterinary surgeon as an adjunct to every Health Board. Minnesota possesses at Redwing a well equipped bacteriological laboratory doing good work in that direction, belonging to the State Board of Health, which is of the greatest assistance to its working, and of the greatest benefit to the maintenance of the health of the State. All States should follow the example of Minnesota.

OBSTETRICS.

In charge of D. A. HODGHEAD, A. M., M. D., San Francisco.

Lactation Atrophy of the Uterus.—At a recent meeting of the New York Academy of Medicine Dr. Vineberg presented a paper which has since been published in the *American Medico-Surgical Bulletin*, upon the subject above mentioned. The question has previously received practically no attention in America and very meagre consideration in any other country, the journals of Germany having given it some slight recognition.

The condition is not what is usually known as hyperinvolution, but is that form of hyper- or super-involution accompanying lactation in which the reduction in size is not permanent. Two varieties of lactation atrophy are mentioned: excentric and concentric, the former applying to the condition in which the walls are considerably thinner than normal, while the cavity is dilated, the concentric atrophy being simply an exaggerated degree of the excentric variety. To quote the author's own words: "Concentric atrophy is only a higher grade of the excentric variety. Various grades between the two varieties are met with, these terms being purely arbitrary and used for convenience. A concentric atrophy not uncommonly becomes, under continued lactation, an excentric atrophy." This description is not as lucid as a geometrical demonstration. It is difficult to conceive how a thing may be both concentric and excentric, how one may be a higher grade of the other, and contrary to evolutionary methods, the concentric, or higher, becoming not uncommonly the very opposite condition. Excentric atrophy applies to the walls which become thinner, while the cavity dilates. Perhaps the concentric applies to the atrophy of the cavity. (?) With this atrophy of the fundus uteri there may be hypertrophy of the cervix resulting from laceration and endocervicitis. No notable decrease in the size of the ovaries was detected In 51 cases examined in whom the period of lactation varied from seven weeks to twenty-four months, the minimum measurement was 4 ctm., and the maximum 8 ctm. The atrophy was in many instances so pronounced that bimanual examination alone gave sufficient evidence to prove that the woman was nursing. The microscopical analysis of the blood and the presence of the normal amount of hemoglobin, preclude the idea that atrophy might have resulted from anæmia or general debility. In the anæmic individuals the hyperinvolution was no greater than in the others. In fact, as we all know, severe constitutional disease is apt to establish subinvolution. In nine instances the menses reappeared while the atrophy was still present, and in several cases conception occurred.

The etiology of this condition is in dispute. Engstrom places it in the same category as the atrophy accompanying such constitutional diseases as phthisis and syphilis, and believes it due to local anæmia of the genital organs. Thorn and others combat this upon the very sensible theory that it is a normal process and may yet be met with in perfectly healthy and robust women. In truth, the literature would lead to the conclusion that the atrophy is most likely to occur in the healthy classes. Even if the atrophy results from a local anæmia, the anæmia itself may be the result of a physiological process. Every obstetrician knows that irritation of the mammary nerves, shortly after labor, will reflexly produce contraction of the uterine muscular fibre, and we are further aware that there is ever in the female a very intimate and sympathetic nervous connection between the mammary gland and the generative organs. Since in pregnancy the only organ to become hypertrophied is the uterus, we would expect none other to take on atrophic action, although the stimulus from the mammary gland might extend to the other generative organs, and this hyperinvolution may be like the swinging of the pendulum to the opposite extreme before settling down to the plumb line.

A very interesting physiological lesson may be drawn from these teachings. Post-puerperal, normal hyperinvolution is not known to occur independently of lactation. This strongly emphasizes the fact that the mother owes it to herself as well as to her offspring to follow this physiological requirement.

Apropos to this subject is the very significent one regarding treatment of fibroid tumors of the uterus by suction of the nipple. Dr. F. Howitz, of Copenhagen, has published an account of two women who were under his care at the same time, both being pregnant and both suffering from fibro-myomata of the uterus. One woman nursed her child. An examination at the end of five months after labor showed that the tumor had disappeared. In the other woman who did not nurse her child the tumor remained unchanged. These cases induced Dr. Howitz to make experiments for the purpose of ascertaining what influence suction on the nipple exerted upon fibroid tumors of the uterus. He has applied the treatment in five cases, the suction being carried on daily. In some instances there seemed to be a diminution in the size of the tumors, and in no instance has the treatment produced an appreciable injury.

Seats for Women Required by Law.—The Legislature of the State of New Hampshire has wisely enacted a law requiring all mercantile, commercial and manufacturing establishments employing women, to provide seats for the women employed, and to permit those seats to be used by these women in every possible instance. A heavy penalty is attached to the violation of the law.

DERMATOLGY.

Under the charge of MARTIN REGENSBURGER, M. D.,
Professor of Skin and Venereal Diseases, Post-Graduate School Medical Department University of California; Consultant for Diseases of the Skin to the German Hospital.

Treatment of Furunculosis.—However useful the external treatment of this disease may be, there are cases which do not get well in spite of all external treatment. In a number of cases, according to the *Journal de Medicine Pratique,* Brocq has had occasion to prescribe a remedy which heretofore has not been employed in this affection and which has yielded excellent results. The remedy is the extract of colchicum to be given in doses of from 1 to 3 centigrammes a day. The effect has been a good one in some cases, although Brocq cannot guarantee the constant efficacy of the treatment, yet he does not hesitate to recommend it above all other heretofore known internal remedies.—*Gazette des Hopitaux,* March, 1895.

Psoriasis Modified by Syphilis.—Renault presented a patient (female) 50 years of age, whose parents were rheumatics; she herself had been afflicted with psoriasis since her infancy. This patient contracted syphilis in October, 1893, was treated in the service of Dr. M. C. Paul at the Charité. She was left totally free from all specific lesions, with a few psoriatic plaques. But suddenly in the month of September, 1894, she was attacked with a papular syphilid and a new outbreak of psoriasis, which latter had confined itself heretofore to the extremities only, but now is disseminated all over the trunk of the body.—Renault, Societe de Dermatologie, November, 1894.

Pruriginous Dermatoses.—Brocq uses this liniment:

℞	Talci	
	Amyl. pur aa	50 0
	Glycerine	20.0
Lq.	Plumbi. acet. dilut.	100.0

S.—Externally.

After shaking the bottle thoroughly, take a given quantity of its contents, add about double the quantity of water in order to make a liniment of a very liquid consistency, and apply the same to the affected parts with a soft paint brush. The parts so treated remain covered with dry layer of powder which exercises a cooling, non-itching, astringent and antiseptic action. Should the liniment produce a disagreeable, smarting sensation, as it is apt to do on a very sensitive skin, this can be avoided or remedied by changing the above mentioned formula to equal parts of lq. plumbi. acet. dil. and a 1 per cent boracic acid solution. This liniment gives excellent results in dry dermatoses, especially in acute papular eczema, chronic eczema, eczema of the genital organs and the confines of the anus, in lichen ruber and in psoriasis where there is intense reactive inflammation. It is expressly contra-indicated in all cutaneous diseases which are accompanied by moistening.

Treatment of Psoriasis by Large Doses of Iodide of Potash.—The method of Haslund has been tried by Seifert of Wurzburg in thirteen cases. In four cases of psoriasis complete cure resulted after seven weeks' treatment with doses varying from 223.0 to 850.0 grammes of iodide of potash. The other patients were benefited by this treatment in so far as the action of the chrysarobin and anthrarobin was a very much more rapid one than with patients who were not treated by the above method. The very large doses of the iodide (20 to 40 grammes a day) were tolerated remarkably well. Seifert has found that the constant use of large doses of iodide of potash evokes tachy-cardiac troubles (pulse up to 170 per minute) followed by febrile symptoms.—*Med. Mod.*, Oct. 15, 1895.

A Bad Case of Syphilis Cured by Thyroid-Feeding.—Gouladse had occasion to observe a patient aged 25 with a severe attack of syphilis. A syphilitic ulcer had destroyed both wings of the nose and part of the left ear. The general condition of the patient was a very bad one. Thyroid gland was cut into small pieces and fed to the patient with some bread, salt and butter. From the fifth day on a steady progress was noticeable, the patient gained in weight, the ulcer began to freshen up and was very soon completely cicatrized. Five months after beginning the treatment the patient was completely cured. The dose of 20 grammes a day was increased progressively two grammes at a time until the patient had reached the point of taking 14 grammes four times a day. Every third day the treatment was interrupted for 24 hours.—*Med. Mod.*, October 5, 1895.

How Long Should the Treatment for Syphilis be Kept Up?—Kaposi condemns the so-called method of successive treatment praised up by Fournier, and which consists in treating the syphilis for years, alternating between mercury and iodide of potash. Kaposi is satisfied in most cases of syphilis to carry out a single course of treatment of several months' duration, or two or three courses of treatment in the course of two years, and to see his patients get well and bring children into the world who are perfectly healthy. To prolong beyond limit the treatment of syphilis is, in the eyes of Kaposi, useless and dangerous. The Viennese professor questions if the great frequency of affections of the nerve centers, due to syphilitic origin, observed in France, may not be due to the abuse of too prolonged treatment. According to Kaposi the initial antisyphilitic treatment should be prolonged for some time and carefully watched. This first treatment should not be repeated, excepting one is confronted with some unforeseen accident. Occasionally the healthy-looking and feeling syphilitic may be placed under treatment for a second time in the course of the first year following contamination. For Kaposi, syphilis is a curable disease.—KAPOSI, *Wien Med. Wochenschrift.*

JAS. GRAHAM SHARP, M. D., D. D. S., has removed to St. Helens Building, 1145 Polk street, corner Sutter, San Francisco.

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NOSE AND THROAT.

Under charge of J. DENNIS ARNOLD, A. M., M. D., San Francisco.

"Throw Your Cautery Out of Doors!"—At a recent meeting of the Laryngological Section of the London Clinical Society, the chairman opened his report with the above rather startling advice. It was clearly the reporter's design to call attention, in a manner not to be mistaken, to some very flagrant abuses of the galvano-cautery in the treatment of the more common forms of naso-pharyngeal catarrh. Though we do not purpose to urge that Dr. Johnstone's suggestion be literally followed, we heartily concur in his belief that the indiscriminating use of the cautery has become a positive evil; whilst we admit that its employment in properly chosen cases of hypertrophic catarrh is of great efficiency. Indeed the abuse has arisen just because of its undoubted value in a certain species of this disease. Up to the time when Voltolini and Midolidop first brought into practice this method of cauterizing the turbinate bodies and the pharyngeal tonsils hypertrophic rhinitis was as unmanageable as ozœna. Naso-pharyngeal catarrh rarely received rational treatment, and consequently was as rarely cured. The new method at once attained widespread vogue, and in the hands of the specialist soon proved itself of very great value. Unfortunately it fell into the position of a routine practice. The procedure was so simple, so easy of application; in many cases the result so prompt and gratifying, that it became the constant and unvarying method for all catarrhal affections of the upper air passages.

Cauterization of the mucous membrane—under no circumstances a very painful procedure—can be rendered entirely painless by the topical use of quite weak solutions of cocaine; and to this latter fact was due, in no small measure, the great popularity of the form of treatment we are now considering. As noted above this quickly became a "routine," and nothing can be more deplorable than routinism in the practice of medicine. To it are due the deepest errors in the history of therapeutics. "That dust chamber," as Virchow calls it, "that limbo of medicine into which are swept all the reactionary errancies of our science." A priori, the specialists should be the very last to become routinists, if there be any truth in the indictment so commonly found against them—that from being constantly engaged in the study of some small subdivision of the domain of medicine, they are prone to magnify the importance of that limited territory, to view it as an isolated member rather than a portion related to and interdependent with other parts of the whole organism. It is further asserted that comparatively far-fetched sub-divisions, and over-refined distinctions of function and disease are made with the result of lending an undue and even fictitious importance to these highly specialized forms of practice.

These and similar considerations as against specialism have been much discussed, and it may be admitted, with some degree of justice; but, valid or not, they surely indicate a tendency quite opposite to routinism. And yet there can be no doubt that among laryngologists the use of the galvano-cautery in the treatment of nasal and pharyngeal catarrh has, to a great extent, become a matter of bald routine. And, unfortunately, the trouble does not end there. The general practitioner soon supplied himself with a cautery battery and began to cauterize the nares of every patient who chanced to divulge the fact that there was "something wrong in his nose," a not very unusual state of affairs. And his ministrations are not confined to those cases which actually present hypertrophic tissue. The cocaine spray or wedge, an application which always precedes the cauterization, gives such instant and grateful relief to the "stuffed nose" and labored respiration that it has come to be used in acute rhinitis, and even for coryza, the ordinary everyday cold in the head. The cocaine produces immediate depletion of the swollen turbinates, a stroke of the cautery accentuates and prolongs this action, and, as if by magic, the patient is relieved of all those really distressing symptoms of obstructed nasal respiration. In addition to relief from his ailments, and what perhaps he only half suspects, the patient carries away with him a certain feeling of "well being," an exhilaration produced solely by the cocaine used in his treatment. Of course all this passes off in from ten to twelve hours, and he applies next day for a repetition of the performance. If we are to believe the "lay press" in some of the larger cities, nasal cauterization has become quite a fad; indulged in by many in much the same spirit that incites toward an opium, or alcoholic, or venereal debauch. Certain it is that many cases of cocaine addiction have originated in this manner.

The amount of harm, harm often irremediable, done by this promiscuous and unreasoning burning of the delicate mucous membrane of the nose and throat, is appalling. The turbinate bodies are composed of true erectile tissue; their function is to add heat and moisture to the inspired air, and it is not surprising that any interference with this important physiological purpose is attended with quite grave disorders affecting the whole respiratory channel. Not the least of the evils met as results of cauterizing these organs "when there is no true hypertrophy present," is that class of cases becoming more and more numerous—dry nasal catarrh, a trouble as little amenable to treatment as genuine ozœna.

It may be asked—is there then no acceptable and successful method of treating this form of catarrh—the chronic rhinitis in which there is no actual hypertrophy, but merely a lasting dilatation of the venous sinuses of the turbinate bodies? The answer is—Yes, surely. It is just for this affection that electric massage is best adapted. This procedure is at once painless, rapid and effective—and no small part of its merit is the absence of all need for the employment of cocaine. The carefully graduated faradic current with very rapid interruptions gives the best results A great number of instruments have lately been constructed with special contrivances for increasing the rapidity of interruptions and giving more perfect control in grading the strength of the induced currents. Engelmann's is by far the best offered; with this machine it is possible to get from 80,000 to 100,000 interruptions per minute. It is an improved Masson vibrator, but one in which an independent current is used to control the vibratory and not the same which—as in the Ruhmkoff coil for instance—is utilized to induce the secondary currents* around the magnet. Dr. I. Mount-Bleyer has reported a series of 200 cases treated with this instrument with 93 per cent perfect cures. Such success is perhaps somewhat exceptional, but similar results are being reported from all sides. Indeed this method is proving so effective in combating a heretofore obstinate disease that there is really some danger that "electric-massage" may, in its turn, fall into the position of a routine treatment for catarrhal disorders, all and several. Let us pray it shall not be so abused.

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* *Revue Internationale de Rhinologie, Otologie et Laryngologie,* Paris, 10 Nov., 1895, p. 241, "Massage Electro-vibratroire des Cornets."

OPHTHALMOLOGY AND OTOLOGY

Under charge of W. F. SOUTHARD, A. M., M. D.

The Section of Otology of the British Medical Association held its annual meeting in London, July and August, 1895. A summary of part of the work done at the meeting may prove of interest to many of our readers, especially as we are treated to the very latest views on the as yet unsettled question of pilocarpin and electricity in nerve deafness and diseases of the labyrinth.

In his opening address Sir William Dalby, M. B., F. R. C. S., England, says: "In regard to the treatment of the various forms of nerve deafness," I wish to say that the words in which this discussion have been described were not chosen without due deliberation. The term "nervous deafness" is intended to include not only disease of the nervous apparatus, but loss of hearing, due, as we know it to be, to causes which affect the whole nervous system generally; also loss of hearing due to shock or emotional and mental influences; lastly, those conditions which, beginning as they do within the tympanic cavity, and at first simply interfering with the conduction of sound, finally are found to involve the perceptive as well as the conducting media, and to be the starting point apparently of subjective nervous phenomena. What we desire is thoroughly to thresh out the subject, so that we may arrive at the approximate value of various methods of treatment which seem to require a more complete accuracy as to the conditions which they are supposed to combat. This anxiety for a more firm basis on which to place various remedies applies especially to the use of pilocarpin and electricity. At one time great hopes were entertained in the profession as to the value of pilocarpin, and yet when the subject was discussed at a recent meeting of the Association at Newcastle it found very little support even from those who had given it a fair trial. Again, it cannot fail to have been observed how in many nervous disorders great temporary benefit has followed the use of electricity, but the permanent effects have very frequently not been maintained.

Pulsatory Tinnitus.—The president then showed a patient, a young lady, aged 15, with whom a loud grating sound in the left tympanic cavity could be heard by the bystanders. The sound was something like the loud tick of a watch, and was synchronous with the pulse for several beats; it then stopped for a brief interval, and was then resumed. This remarkable symptom came on suddenly in February, 1894, and had remained ever since. At that time, as now, she was in excellent health, and the symptom is neither more nor less pronounced than it was seventeen months ago. The beats can be observed to vary in number. Thus it was noticed to beat seven times, an interval; then twice, an interval; then four times, an interval; then thirteen times. The hearing is not affected. No position or movement of the body, or indeed any condition that has up to now been noticed, appear to modify it. Both tympanic membranes are normal. Sir William Dalby had only met with two other cases of a similar nature.

Treatment of Nerve Deafness.—Dundas Grant, M. D., F. R. C. S., in his opening remarks said: "I feel sure that nothing like certainty in treatment can be attained without greater accuracy in the diagnosis of the different forms of disease to which the term is applied; but, as time will not permit of my dealing with the subject of diagnosis I will pass on to the means of treatment at our disposal, which are many in number but of specially local character. They include the application of cold by means of icebergs or Leiter's coils; the application of heat—of some value as a local sedative, but in general to be avoided as tending to lower the vasomotor tone; local depletion, by means of living or artificial leeches on the mastoid vein or of free puncture of the turbinated bodies; general depletion—by venesection in the arm or the neck—effects less directly the same purpose when general plethora calls for it.

After detailing somewhat minutely the various methods of treatment, more especially the use of pilocarpin and electricity, he concludes his paper by saying: I would submit the following points for consideration:—

1. The necessity of careful diagnosis of the different conditions giving rise to so-called nerve deafness.

2. The great value of treatment by means of pilocarpin in fresh exudations into the labyrinth; its comparative uselessness in old-standing changes in the labyrinth; its action when at the moment beneficial being usually only transitory.

3. The recognition of the functional character of many cases of nerve deafness.

4. The recognition of the changes in the auditory faculty pro-

duced by senility, and the avoidance of errors in prognosis and of too energetic treatment.

5. The recognition of the frequency of middle-ear diseases as a cause of Ménière's symptoms.

6. The hopeful use of galvanism in functional deafness, and in even pure nerve deafness produced by habitual exposure to noises in subjects who are not highly nervous.

I trust that these fragmentary introductory remarks will elicit reports as to both failures and successes on the part of those who have employed the measures I have spoken of.

H. Macnaughton Jones, M. D., in a paper on the same subject, spoke of the great difficulty we have in isolating clinically those defects in hearing to which we are inclined to apply the term "nerve deafness." He gives an analysis "of 50 cases of extreme deafness in which there can be no doubt that the auditory nerve was affected in some parts of its course." He calls attention to the following facts in regard to the etiology of these 50 cases, namely:

"1. The proportion of females affected being 31 to 19 males. 2. The hereditary or congenital nature of a large number of these cases. 3. The causes ascribed for the deafness in several of these latter cases being such as pregnancy, residence in tropical climates, or a nasal affection. 4. The number complicated with nasal deformity or disease. 5. The large number in which the hearing of one ear remained unaffected, or in which the hearing was fairly good. Save in a few instances, where the corresponding nostril was completely obstructed, there was no special reason for this immunity. 6. Residence in India, and mental overstrain, as causes of nerve deafness."

He does not have much faith in pilocarpin or galvanism. In conclusion, the writer condenses his belief in these words: "Children of parents affected with deafness should have special attention paid to the ears during the exanthemata. Adenoids should be carefully looked after, and any nasal deformity that may exist. All through life, if the person should be exposed to such predisposing causes as those I have enumerated in this paper, any slight tinnitus or deafness should have immediate attention, and the children of deaf parents going to reside in the tropics or in miasmatic malarial climates ought to be warned of the additional risks they run by so doing. The same remark holds good regarding pregnancy or mental over-strain or the infection of syphilis.

I believe the time of the menopause to be a critical time to those women with any tendency to nerve deafness. So is, in both sexes, the time of puberty to those predisposed to hereditary aural mischief. In short, while I attach the greatest importance to prophylaxis and early attention to hygiene, climate, and to any defects of the middle ear, including the naso-pharynx, with the administration of suitable therapeutic remedies, I think the risk we run as aurists is of abandoning ourselves to fads and quackery in the treatment of deafness due to actual disease of the auditory nerve."

The discussion which followed brought out various views on treatment, especially of pilocarpin and electricity.

The President (Sir William Dalby) said: "Two points stood out in unusual prominence, namely, that the injection of pilocarpin in the opinion of those present was condemned as useless and unjustifiable; and secondly, that the result of the treatment of nerve deafness by electricity in the present condition of our knowledge was most discouraging.

Tuberculous Diseases of the Mucous Membrane of the Middle Ear and its Adnexa.—Dr. William Mulligan, after speaking of the channels along which the tubercle bacilli may travel to reach the middle ear, says: "Most observers have found it extremely difficult to detect bacilli in pus coming from the cavity of the middle ear, and my own observations fully bear this out." As an example he states "that in an examination of 21 patients suffering from tuberculous lesions of internal organs, Habermann could only distinguish the tuberculous nature of the ear affection in five cases." Dr. Mulligan reviews the clinical methods which indicate the possibility of the case being one of tuberculosis, then he takes up the problem of proving the presence or absence of tubercle by scientific methods. The author "selected the methods of subcutaneous inoculation as practiced by Villéman and Delépine."

"These experiments were carried out in the Pathological Laboratory of the Owens College, and as the result of a large number of inoculation experiments, Prof. Delépine has come to the following conclusions:

"1. That the inoculation is a method of diagnosis capable of giving results free from ambiguity. 2. That the negative results obtained from it are nearly as valuable as the positive results. 3. That the positive results give more definite information than the discovery of the bacillus tuberculosis. 4. That definite results should easily be obtained within two or three weeks."

He says that "the results obtained are somewhat striking, and prove, I think, that primary tuberculous disease of the middle ear is a much more frequent condition than is usually supposed to be the case. Thus, of the 10 cases to be described, 8 (or 80 per cent) were of a tuberculous nature; 2 (20 per cent) were non-tuberculous.

"The clinical picture presented by most of the cases consisted in the sudden and apparently painless onset of discharge from one or both ears, the early involvement of the glands around the auricle and the frequent presence of facial paralysis."

Dr. Mulligan concludes his paper by giving the history of 10 cases of mastoid operation, 6 were under one year of age, 2 were of two years of age, 1 eleven and 1 nineteen. In each case scrapings were taken from the mastoid bone and with it guinea-pigs were inoculated. After an interval of five weeks the guinea-pigs were killed and the tubercle bacilli found in the glands in various portions of the body.

Intractable Suppuration of the Middle Ear Treated by Operations through the Mastoid.—Thos. Barr, M. D., Glasgow, read a paper "based upon eight cases of chronic purulent inflammation of the middle ear, which, after the employment of all ordinary methods of treatment through the external auditory canal and Eustachian tube, continued for months, and even years, were successfully operated upon through the mastoid. Four of these cases were operated on by Dr. Macewen and four by myself. Two were in the right ear and six in the left. Instead of describing these cases in all of their clinical details, I prefer simply to place before you the salient points from which you may be able to judge of their significance:

1. In these eight cases the purulent mischief had been of very long duration. The duration of the shortest was three years, the others extended from fourteen to twenty-two years. 2. In every one, treatment through the external meatus and Eustachian tube had been previously carried out, in no case for less than a year, and in some for as long as seven years. 3. In none of these cases did the secretion before operation ever lose the odor of decomposition. 4. In every case the seat of the purulent formation was without doubt chiefly in the attic or attic and antrum, either with perforation in Shrapnell's membrane, or

other clear evidence that the essential mischief was in these regions. 5. In no cases were there any objective signs of mastoid complication. 6. In all the attic syringe had been employed, and in three cases the malleus had been removed in order to allow of more efficient treatment of the attic. 7. In regard to age and sex, the youngest was 14 years and the oldest 32 years; six were males and two females."

It is also to be noted that in each case the "operation was performed with the globular dental burr; also that the burrs made at Philadelphia were found to be the best." He prefers for after-treatment "careful and regular antiseptic cleansing," in preference to the dry treatment which would be the "ideal treatment were it always possible to remove every trace of disease."

In six cases the operation achieved ultimately the desired effect of bringing the discharge to an end, and in no case did it recur. In two others scarcely a trace of secretion, only requiring syringing once a fortnight. The minimum and maximum periods from the operation to cessation of discharge, 3 months and 15 months. "With respect to the artificial opening, it was found in certain cases difficult to maintain it for a sufficient length of time, owing to its tendency to contract in spite of thorough stuffing with gauze." "In two cases I found that only after the healing of the mastoid wound did the secreting process in the ear entirely cease." "In four cases out of the eight the opening still remains. In one the canal leading to the attic still exists, a year and a half after the operation." "The malleus was removed in three cases previous to the operation, and in two of them the incus was found between the attic and antrum, and removed. In three others the incus was removed at the operation, diminished in size by caries. In one case neither ossicle was found. In one case the hearing was notably improved; in three cases it was slightly improved; in two it was unaltered; in two the deafness was increased after the operation."

In concluding, I would emphasize the fact that these were not selected cases. They include, without exception, all the patients under my care who have been operated upon in this way since June 23d, 1893.

General discussion appears to have favored the use of the burr rather than chisel and mallet for mastoid operations. There also seemed to be a general agreement among those taking part in the discussion that the middle ear was frequently the source of tubercle. We should not overlook the value of "separating cases of general meningitis from cerebral abscess."—*Dalby.*

Danger of Syringing the Ear with Plain Water.—Dr. Pritchard said he wanted to insist upon the dangerous practice of syringing with plain warm water in otorrhœa. In removing granulations from the middle ear, he always syringed previously with carbolic solution, 1 in 40, then removed antiseptically, and finally treated by again syringing with 1 in 40, and packing with double cyanide gauze. The gauze is changed once a day for four or five days, without syringing. This yielded excellent results, and reduced the danger of the infection of the deeper parts to a minimum.—*British Medical Journal, Nov. 16, 1895.*

Aluminum Solder.

From a late number of the *Scientific American* we find that a substantial solder for aluminum has finally been discovered. Its composition is aluminum 1 part, 10 per cent phos. tin 1 part, zinc 11 parts, tin 29 parts. It fulfills the requirements demanded so perfectly that is is now generally adopted both in this country and Europe.

Doctor's Story Series.

Baily & Fairchild Co., of New York, take pleasure in announcing to the medical profession the establishment of the "Doctor's Story Series," to be issued quarterly at $2.00 per year, 50 cents a number. Each number will consist of a complete work of fiction by medical authors. Only such works as are of established value will be reproduced in this popular form. King's "Stories of a Country Doctor" will be issued in January, 1896, to be followed in March by Dr. Phillips' wonderful novel "Miskel," and later by a novel now in preparation by the same author.

THE *Medical News* says: The danger of blood-poisoning in piercing the ear is not to be ignored. This home surgery is not right, it is medically unclean. The needle is not clean, it and the thread to be used may have lain about in an open work-basket for an indefinite time amongst medically unclean things. The cork used is very likely to be taken from the handiest bottle, without regard to its contents. Inflammation and suppuration naturally result.

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EDITOR:
W. F. SOUTHARD, A. M., M. D.

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SAN FRANCISCO, FEBRUARY, 1896.

Editorial.

"LONDON LANCET."

The centenary of the birth of Thomas Wakley, the founder of the *London Lancet*, is to be celebrated by the publication of his biography in serial form during the coming year. Believing that the readers of the PACIFIC MEDICAL JOURNAL may be interested in knowing something of a man who, by his own industry, determination and indomitable perseverance brought about such radical changes in medical teaching and in the conduct of hospitals as may well be termed revolutionary, we here give a brief sketch of his life and career.

Like many another of England's famous medical men, Thomas Wakley came up to London from the country. We learn that he was born in the County of Devonshire in the year 1795; that at the early age of 12 or 13 he made a voyage to the East Indies; returning the next year he entered the grammar school of his native town. At the end of two years he was apprenticed in regular form to an apothecary of the old school; he remained with him but one year, then became a pupil of a Mr. Coulson and his brother-in-law, a Mr. Phelps.

At the age of 20 he came up to London to walk the hospitals and to study in the schools of the United Hospitals of Surgeons and St. Thomas, which, at this time were under the reign of Sir Astly Cooper. He studied diligently for the next three years, but it is evident that he must have been observing with keen and critical faculties, the low if not degraded position then held by the medical profession in England. He saw that corruption and nepotism were prevalent in both schools and hospitals. After graduation he became more and more impressed with the need for reform in all departments of medicine, and he resolved to set himself to undertake the role of reformer. He felt within himself the consciousness that he had the ability and power to undertake the great and difficult task. He knew that he should have to devote his whole energies to the work if once he began, for the abuses, though many and very serious, were the outgrowth and development of hundreds of years of conservatism and indifference. Realizing to some extent the powerful opposition which would immediately assert itself when once he developed his plans, he left the practice of medicine and founded the *Lancet* as a medium through which he could attack that which he believed wrong and bring the subject publicly before the great body of physicians practicing in Great Britain. The first number of this journal was issued Sunday, October 5, 1823, and from that date to the present it has been a power in raising the medical profession to a higher plane; for many years it was under his sole control, since his death it has been continued by his son and at the present time his grandson is associated in its management. For the next ten years Thomas Wakley had a thorny road to travel; he was aggressive to the last degree and his fierce invectives and his exposures of existing abuses, brought upon him an avalanche of suits for libel, while he in turn brought numerous suits, and it is gratifying to know that he won all but two or three. Although the total costs to him amounted to some $40,000, the result of these successes assured him the "right to free speech which he exercised to the wholesome dread of all pretenders, while it made his enemies, and they were many, cautious."

He was the first to give publicity to medical lectures, Sir Astly Cooper being the first lecturer whom he reported, and it was with rare judgment and forethought that this selection was made, for Sir Astly was a charming lecturer, thus giving to the profession at large an opportunity to compare the work done by the various hospitals and physicians, in order that "if they are good so much the better for the profession at large; if they are bad the profession at large will see that they are being taught by men unfit to hold the posts for which they are paid, and will recognize that the existent systems of election are corrupt." Among the many reforms which he inaugurated and pushed to a successful issue, was a change in the methods pursued by the Royal College of Surgeons in their examinations, which were characterized by him as "perfectly ridiculous as a test of qualifications."

In 1830 he attacked with vehemence the coroner system, declaring with justice that the coroner should have a medical education. To bring the subject before the people he became a candidate and was beaten by only 186 votes. In 1839 he was overwhelmingly elected coroner and held this post during the remainder of his life.

In 1835, after twice being defeated, he was elected to Parliament, where he was the author of many valuable laws which have aided in putting the practice of medicine on a higher plane than formerly. He took great interest in enlightening the public on hygienic matters. His papers on food and its adulteration were the first published on this important subject; these papers have been followed by others on the same and kindred subjects, to the present time. He brought the "microscope and test tube to bear with unerring truth upon things hidden and secret to the unaided senses."

The present efficient laws against the practice of fraudulent adulteration are the direct outcome of his fearless writings and speeches in and out of Parliament. He died only too soon, but the record of his labors have not perished, they remain as a monument to the truth that genius is but another name for hard work. His life is an example to the young and ambitious man that determination backed with brains will certainly win in the long run. It must be acknowledged by those who have followed the history of medicine in England and in the United States for the past three-quarters of a century "that to Thomas Wakley much of the material prosperity of the present day is due and much of the importance that the medical man occupies in the opinion of his fellow-citizens, for the healing sciences have been as much advanced by the man who made medical education and proper chances of advancement possible for the poorest aspirant as ever they have been by the test tube of the savant, the beneficence of the plutocrat, or the golden eloquence of the gifted lecturer."

DR. GEORGE DOCK, at present Professor of Practice of Medicine and Pathology in the University of Michigan, Ann Arbor, has been elected Professor of Pathology and Bacteriology in the Jefferson Medical College.

SENSATIONALISM.

Sensationalism is not by any means confined to the modern newspaper as many would make us believe, nor is it limited to morbid and abnormal literary and theatrical experiments, but in the realm of science devoted to the search for exact truth we find that there is a like tendency to cater to the masses through sensational means. We need not specify examples, many such must occur to the minds of every thoughtful person. It is enough that the facts are as stated. If we follow up this line of thought we might easily show how the cultivation of this abnormal desire for excitement has been a potent cause for the development of disturbance of a physical and psychical nature during the past 30 years.

Paresis, paranoia, and other like diseases of the nervous system are but resultants of this love for mental and physical excitement. Nature's inexorable laws of compensation demand a penalty for violation of laws of health. Not only may physical and mental suffering ensue, but the victim will view the world and pass judgment upon his fellow men as seen by him through his jaundiced eyes. He thinks that all are degenerate excepting himself.

We are moved to these reflections by reading a lecture of Theo. B. Hyslop, M. D., of London, upon "The Diagnosis of Insanity" (*Medical Press and Circular*). The remarks which struck us as particularly forceful are as follows:

"Of late years we have a superabundance of literature upon the decay and degeneration of the human race. Were we to resort to the *argumentum ad hominem* we might see that these advocates of degeneracy are in reality degenerate advocates. They themselves adopt that weapon of rhetoricians and demagogues, the *argumentum ad populum*, in that they address themselves to the masses at large, and seek to excite their feelings by arrogant and insulting biographical details, which tend to prevent the formation of a dispassionate judgment upon the matter in hand.

"Max Nordau might, from his writings, be described as a degenerate. He is not, however, an example of the genius who is degenerate, but of the gifted man who suffers from auto-hypnotism, and who appears to exhibit a condition of monoideism, which has been developed at the expense of his sense of justice and practical reason. I agree with Professor James that the real lesson of the books upon degeneration and genius is that we should welcome susceptibilities, impulses, obsersions, if we have them, so long as by their means the field of our experience grows deeper, and we contribute the better to the race's stores; that we should broaden our notion of health instead of narrowing it; that we should regard no single element of weakness as fatal—in short, that we should not be afraid of life."

As a further illustration of our point that he who claims to be an expert in detecting degeneracy and criminality in others. may himself be one, let us quote the following from the *Medical News* of January, 1896.

"It is reported that Dr. Cæsar Lombroso has just been convicted in a French court of gross plagiarism, and condemned to pay the man out of whose book he stole the sum of 2,500 francs. The plaintiff, M. Crepieux-Jamin, found in *La Grafologia*, a work by Lombroso, published at Milan, passage after passage which were simply translated from a book by M. Jamin, to whom no credit was given, and whose name was not once mentioned by this soi-disant criminologist. He brought suit at Rouen under the International Convention adopted at Berne, in 1844, and won a verdict without difficulty, the evidence being indubitable. A tendency toward plagiarism, we have been told by both Lombroso and Nordau, is a sign of degeneration. Doubtless it is—degeneration of the conscience"

In a letter from London to the *New York Medical Record* we learn that Canon Wilberforce has been ranting in the *London Times* on vivisection and exposing himself to ridicule and worse. Professing to supply proofs that hospitals are used for shocking experiments on patients, he has been given the "lie direct." This is but another example of catering to the masses through morbid sensational methods. Such things are to be expected from the paid sensation-monger, it is most painful, however, to find a great churchman like the Canon placing himself in the humiliating position of a convicted liar.

In the *Medical Record* for January 3, 1896, is a paper by Mr. W. A. Purrington, of New York, on "The Law of Libel and Slander as Affecting Medical Practitioners." This paper was read before the Society of Medical Jurisprudence, December 9, 1895. It covers the whole field thoroughly, and should be carefully read by every physician.

"THE MEDICAL NEWS."

The publishers of the *Medical News* of Philadelphia for business reasons have moved their journal to New York City. Dr. Geo. M. Gould, who has so long and ably edited it, remains in Philadelphia, thus severing his connection with it as editor. Dr. J. Ridde Goffe, of New York, is the new editor, his address is Constable Building, Fifth Avenue and Eighteenth street, New York City.

In retiring from the *News* Dr. Gould takes with him the kindest wishes for his future success from hundreds of friends scattered all over the United States. Under his wise direction the *News* has won an enviable position among the medical journals of the whole country. His editorials were always upon living topics, scholarly written and quotable. We give his farewell words:

"In severing relations with his contributors and collaborators the retiring editor deeply regrets the necessity of doing so, because whatever of unpleasantness and labor the office may have brought to him it has been the means of bringing a much larger share of things good beyond valuing—the friendship and sympathy, for example, of many noble men, and a clearer comprehension of the real dignity and loyalty of the great medical profession. There may be added the satisfaction of the consciousness of having striven faithfully to administer the trust for the benefit of scientific and ethical medicine. Hundreds of cordial letters received attest a certain measure of success in realizing this ideal, and no reply can adequately express the sense of gratitude felt for numberless courtesies and kindnesses spontaneously extended."

WORLD'S CONGRESS OF MEDICAL CLIMATOLOGY.

The national meeting will be held in San Antonio, Texas, beginning February 20, 1896, and continue for three days. The object of the Congress is to make a thorough, careful, scientific and systematic classification of the climates and resorts of the world, and particularly of the United States as regards their therapeutical value in all forms of disease; also to examine into the merits of mineral waters and properly classify them. For further information address W. S. Rowley, M. D., Menger Hotel, San Antonio, Texas.

SERUM THERAPY IN LEPROSY.

Dr. Carrasquilla of Bogota, Republic of Columbia, reported to the National Academy of Medicine the result of the use of the serum in 15 cases of leprosy where the diagnosis was positively assured. He used the serum both in the nervous type and in the tubercular type and obtained most surprising results. He was the first to make and to use serum for this disease in this country. The following modifications were obtained.

1st. It re-establishes the sensibility more or less rapidly, according to the extent and gravity of the lesions of the peripheral nervous system.

2nd. It causes a discoloration of pigmented spots, without entirely removing them. An abundant desquamation occurs in them.

3rd. The œdemas disappear, rapidly in some cases, slowly in others. When the œdema has vanished the skin is restored to its normal physiological condition.

4th. The tubercules become flat and soft, and disappear, sometimes by absorption, sometimes by desquamation, sometimes by suppuration, leaving scars.

5th. The ulcerations, after suppurating abundantly, become cicatrized with astonishing rapidity, and leave, finally, a healthy skin.

6th. The scars of old lepromas that have formerly suppurated become pale and tend to return to the level of the surrounding skin.

7th. Ulcerated mucous surfaces begin to heal, become paler, sensibility returns, and the tubercules disappear.

8th. The face, as the œdema and the tubercules disappear, and the pigmentation vanishes, becomes thin and loses entirely the "aspect leonine."

9th. Appetite and sleep return. Hope and contentment succeed to profound discouragement and depression.

10th. From the very first injection of serum that is given to the patient, the morbid action of the bacillus of leprosy ceases, because from that day no new manifestation of the disease appears. I have treated so far fifteen cases, and in all without exception I have noted this fact which I consider as fundamental and decisive, because it shows that the serum acts directly upon the cause of the disease. This is proved by the restoration of sensibility. The peripheral nervous system is that which is principally affected in this disease. The lesions observed depend on the disorders of nervous action. This re-established, the disease gradually disappears.

Medical Distress in Paris.

The *Journal de Médecine* calls attention to the sad case of Dr. Armand de Langlard, who after fifty years of honorable practice found no other way of escaping starvation than suicide. The same journal estimates that there are 2,500 medical men battling with starvation, borne down by heavy rent and taxes. Year by year the number of medical men increases, while owing to the progress of hygienic science, and still more to the disastrous competition of the hospital out-patient rooms and private gratuitous clinics, the number of patients decreases. It is the doctors themselves, says M. Lutaud, who have created their own misfortunes. They have taught lady patronesses of different societies to diagnose diseases, to dress and bandage wounds, to vaccinate their own children and those of their neighbors. Medical science is vulgarized in every way. Doctors write in important daily papers explaining how bronchitis and cramps of the stomach are to be cured, and in fashion journals they teach how to cure pimples and avert headaches. Furthermore, they have urged that hospital treatment be paid at the rate of 4s. 2d. per day; the middle classes profit by this tariff to become hospital patients, their conscience at ease since they pay. Five hundred thousand gratuitous consultations are given yearly in Paris dispensaries, and in this way a large amount of fees is diverted from the medical profession. M. Lutaud includes in his indictment the Associations des Dames, more or less patriotic, which sends forth thousands of women who, because they have attended a few medical lectures and walked the hospitals for a few weeks, believe themselves to be something very like doctors and treat their families and friends. This school of medical half-knowledge has been created and kept going by medical men, who are now being crushed by the work of their own hands.

Dr. E. G. Frisbie has gone East for a three months' visit.

Dr. Martin Regensburger has removed his office to 803 Sutter street.

Proceedings of Societies.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

The regular meeting of the San Francisco County Medical Society was held December 10th, 1895. The minutes of the previous meeting were read, and on motion adopted.

Dr. C. F. Pawlicki, 1119 Van Ness Avenue, a graduate of Medical Department University of California, 1894, was proposed for membership by Dr. F. J. Fottrell and seconded by Dr. F. B. Petrie.

The reports of the Treasurer, the Librarian, the Board of Trustees, and the Finance Committee were read and placed on file.

Dr. Albert Abrams presented a

CASE OF DEXTRO-CARDIA

in a man 45 years of age. The patient presented himself for examination on account of emaciation and weakness. The position of the heart was occasioned by an interstitial phthisis. Tubercle bacilli were found in the sputa only after the application of a method which the speaker believed was original with him. This consisted of digesting the sputa with an artificial gastric juice in a water bath or thermostat, and after the digestion was complete to pour off the supernatant fluid and neutralize the sediment with a few drops of caustic potash. The subsequent steps of the method were identical with the conventional manner of staining. The results achieved by this method were superior to the other methods in vogue for the examination of the sputum when the tubercle bacilli were presumably few in number. In the treatment of this patient he employed the pneumatic cabinet, purely for its gymnastic effects on the lungs and aerial lavage of a large lung cavity which he detected in the right axillary region.

The speaker also exhibited and demonstrated a portable apparatus—the Pneumatic Cup—for bedside or visiting use. The idea being to secure an action similar to that of the pneumatic cabinet.

A recess of ten minutes was then in order that the members could examine the case.

Dr. Douglass Montgomery, in opening the discussion, said: I do not see how Dr. Abrams' method of acting on the sputum by artificial gastric juice is in any way superior to the treatment with caustic potash, which digests the mucous, etc., just as thoroughly as any other preparation. I would also like to ask of him what he uses to mount the sputum, or whether these left enough glutinous matter to render unnecessary any balsam, etc.? As to this appliance, it seems to be much the same as the old dry cups, and I doubt all of its efficacy as claimed by Dr. Abrams.

Dr. Barbat: A method I make use of where there are few bacilli and a quantity of sputum is to mix the sputum with distilled water; shake thoroughly, and place it in a centrifugal separator. The sediment will contain everything. It is more rapid than the digestive method and equally as reliable.

Dr. Newmark: I would like to ask Dr. Abrams if he is the originator of this method of staining?

Dr. Abrams: I had never heard of it before so consider that I am the originator.

Dr. S. S. Herrick read a paper entitled

SOME CASES IN ETHICS.

The President: It is with pleasure that we have listened to this paper and trust that it will call forth the discussion he invites.

Dr. Wanzer: I can only say that the paper and subject are very interesting.

Dr. Kenyon: This paper brings up a subject on which one could talk a long time. It involves the prosperity of some and the wearing of old clothes by others. Some thrive whose attainments are not equal to those who fail.

Dr. Farnum: I suggest that we all profit by Dr. Herrick's remarks; they are full of meaning.

Dr. Shiels: The sooner the words "code of ethics" is dropped from the medical tongue the better. Let every man behave as his own conscience directs.

Dr. Gibbons: If they only would then we wouldn't need the code. But as they don't we need it.

Dr. Shiels: I can't let that go on record that any set of laws are for the guidance of *gentlemen*.

Dr. Kuhlman: Where we need a code is here in San Francisco, and a strong one too. A case in point: A young medical man here had under his care a patient injured on the railroad. The railroad "surgeons" stated that they would hold a consultation with him at 11 A. M. At that time the young man went there and found the others had been there at 9 o'clock, examined and treated the case. Such cases were frequent.

DR. DOUGLASS W. MONTGOMERY read a paper on

A CASE OF BELLADONNA POISONING WITHOUT DILATATION OF THE PUPILS: CAUSED BY A BELLADONNA PLASTER.

DR. KASPAR PISCHL, in opening the discussion, said: This case is certainly a valuable addition to the literature. What is to me, from the ophthalmological standpoint, especially interesting is the fact that in spite of the general symptoms of atropia poisoning the pupils were not dilated though they are as a rule very sensitive. Dr. Edward Jackson, of Philadelphia, found after an instillation of ⅓ of a minim of a 1: 500,000 solution of atropia containing 1/1,500,000 of a grain of the drug, still a slight mydriases after 24 hours. Instillations of atropia solutions into the eye cause sometimes, when often repeated, general symptoms. I found a case reported of a little child four years old, in whose eyes, for 3 days, atropia had been instilled. From my own observations I found the newly introduced mydriatic scopolarinum still more apt to create general symptoms.

DR. KELLEY: This is certainly a very interesting case, and one that would puzzle any of us, for a case of belladonna poisoning without dilatation of the pupils is indeed rare.

DR. KROTOSZYNER: I recall an incident some five years ago of atropia poisoning which shows we cannot be too careful. A young lady patient of mine was suffering from the night sweats of phthisis, and some atropia pills were prescribed. The next day the mother sent to me stating that her daughter was dying. I immediately went there and found her suffering from atropia poisoning, though the pupils were not so largely dilated as one would expect to find in such cases. After she was placed out of danger I repaired to the druggist's to see how he had put the pills up. I had prescribed 10 pills—$\frac{1}{100}$ of a grain, and he said that as he did not have so small a weight he "just took a little bit"! and was surprised that any bad results should follow.

DR. KREUTZMANN exhibited a specimen of

A LARGE MULTILOCULAR OVARIAN CYST AND A UTERUS WITH MULTIPLE FIBROIDS,

removed by laparotomy from the same patient. The patient and operation presented some interesting features. She was 36 years of age, had been married 20 years, and had never been pregnant. Her menstruation was regular, though painful at times.

She had noticed that her abdomen had been growing steadily larger for the past year. Diagnosis was made by her physician of ovarian cyst. On examination a large cyst with not very distinct fluctuation was found to be present in the right side of the abdomen; the uterus seemed in the normal position, body large. There seemed to be protruding from the cyst a few protuberances, reaching down into the pelvis close to the uterus. When the abdomen was opened at the German Hospital, a large ovarian cyst presented itself, with no adhesions, which was easily ligated and removed *in toto*. It was found that it belonged to the left side and had taken position in the right side of the abdomen, turning the uterus around its axis. Besides this ovarian cyst a uterus with multiple fibroids was found. It was decided best to remove it entire, which was done in the usual way. The silk ligatures of the parametrium were pulled into the vagina, thus bringing the peritoneum of the cul-de-sac and of the bladder into contact. Recovery was interrupted. After a few days, fever set in, and infiltration developed on the right side of the pelvis. Gradually this became smaller and the patient left the hospital. But again, the infiltration grew larger, there was much tenderness, slight rise of temperature and pulse. She was taken back to the hospital, an incision made along Poupart's ligament, and drainage established through into the vagina, a little pus was found. Soon the drainage tube was withdrawn, the swelling gradually disappeared, patient developed a ravenous appetite and in ten days after the incision left the hospital. Her condition has steadily improved, there is no trace of the infiltration, pelvis is free, and the patient is now enjoying perfect health.

Dr. Kenyon asked that if in the second operation the incision was made through the abdomen or vagina?

Dr. Kreutzmann: The abscess developed behind the peritoneum close to Poupart's ligament; it was incised and a counter opening made through the vagina.

The President: It is with pleasure that I announce that at our next regular meeting we shall be favored with a paper on "Acute Bright's Disease," by Dr. W. F. McNutt.

The President stated that at this meeting the amendment prepared by Dr. Kuhlman to Article II of the Constitution would come before the Society. It is as follows: "The objects of this Society shall be, first, to advance and cultivate the medical science; second, to promote and protect the interests of the medical profession."

Dr. Kuhlman then moved than the amendment be adopted as read. This was seconded and carried, and the Secretary requested to spread it on the minutes.

The Secretary brought up the matter of Dr. Farnum's paper and asked what disposal the Society desired to make of it. After some discussion it was moved that the Secretary enter into communication with the editor of the *Journal of the American Medical Association* regarding the publication of Dr. Farnum's paper.

There being no other business the Society adjourned.

Health Reports.

REPORT OF THE STATE BOARD OF HEALTH.

By J. R. LAINE, M. D., Secretary State Board of Health.

Deaths.—Reports from fifty-seven cities, towns, villages and sanitary districts, aggregating a population of seven hundred and seventy-three thousand three hundred and seventy, show a mortality of one thousand and thirty-one—a death-rate of 1.33 per thousand for December, 1895, or 15.96 per thousand per annum.

There were one hundred and eighty-five deaths from consumption, eighty-five from pneumonia, twenty-five from bronchitis, nine from congestion of the lungs, six from diarrhœa and dysentery, eight from cholera infantum, sixty-eight from other diseases of the stomach and bowels, nine from diphtheria, nine from croup, three from whooping-cough, twenty from typhoid fever, six from malarial fevers, three from cerebro spinal fever, forty-two from cancer, four from erysipelas, one hundred and sixteen from diseases of the heart, four from alcoholism, and four hundred and twenty-nine from all other causes, seven of which were from la grippe.

Prevailing Diseases.—Reports from thirty localities, outside of the larger cities and towns, give forty-three cases of pneumonia, one hundred and seventeen of bronchitis, twenty of pleurisy, twenty-seven of congestion of the lungs, forty three of diarrhœa, seven of dysentery, six of cholera morbus, six of cholera infantum, twelve of diphtheria, sixteen of croup, eight of scarlatina, one hundred and fifteen of la grippe, twenty-three of typhoid fever, ninety-nine of malarial fevers, two of cerebro-spinal fever, thirteen of erysipelas, sixty-two of neuralgia, seventy-six of tonsilitis, and seventy-four of pharyngitis.

Whooping-cough was reported epidemic at Colton. Measles was epidemic at Santa Paula, and chicken-pox was reported epidemic at Red Bluff. One case of varioloid was reported at Madera.

Licentiates of the California State Board of Examiners.

At a meeting of the Board of Examiners of the Medical Society of the State of California held December 3, 1895, the following were granted certificates to practice in this State:

Badilla, J. C., San Francisco; Med. Dept. Univ. Cal., July 13, 1895.

Barlow, W. J., San Diego; Coll. Phys. and Surg., N. Y., June 8, 1892.

Beebe, Chas. E. (2nd certificate), Watsonville; Med. Dept. Willamette Univ., Tenn., March 26, 1883.

Dameron, Jno. D., San Francisco, Missouri Med. Coll., Mo., March 28, 1894.

Dunn, Berkeley Sherwood, Los Angeles; Bellevue Hosp. Med. Coll., N. Y., March 13, 1884.

Ellis, James McC., San Francisco; Louisville Hosp. Coll., Ky., June 18, 1894.

Felipello, Eugenio, San Jose; Univ. Turin, Italy, Nov. 2, 1894.

Fox, Charles William, San Francisco; Louisville Med. Coll., Ky., March, 1850.

Hagan, Ralph, Los Angeles; Coll. Med. Univ. So. Cal., June 4, 1895.

Hawkins, Geo. A., Los Angeles; Coll. Med. Univ. So. Cal., June 4, 1895.

Hixson, Levi Jones, La Salle, N. Y.; Univ. Trinity Coll., Toronto, Canada, April 3, 1888.

Meredith, Jesse T., Cedarville; Kentucky School of Med., Ky., June 26, 1879.

Petty, Robert A., Oakland; Med. Coll. of Alabama, March 15, 1872.

Pierpont E., Nordhoff; Chicago Med. Coll., Ill., March 18, 1880.

Rice, Leonard E., San Jose; Trinity Med. Coll., Canada, April 11, 1890; Trinity Univ., Canada, April 12, 1890.

Rockwell, Henry B., Oneonta; Med. Dept. Univ. Penn., March 15, 1881.

Royles, J. T., Woodland; Med. Dept. Vanderbilt Univ., Tenn., March 1, 1886.

Smith, Samuel F., Bakersfield; Coll. Med. Univ. So. Cal., June 4, 1895.

Walrath, Geo. B., Los Angeles; Coll. Med. Univ. So. Cal., June 4, 1895.

Walter, Will P., Oceanside; Med. Dept. Univ. Michigan, March 6, 1892.

Witten, Edward Walter, San Jose; Med. Royal Coll. Surg., England, March 28, 1856.

At a meeting of the Board of Examiners of the Medical Society of the State of California, held December 30, 1895, the following were granted certificates to practice medicine and surgery in this State:

Anderson, Gustave E. F., San Francisco; Rush Med. Coll., Ill., March 28, 1893.

Barnard, Thomas P. C., N. Tonawanda, N. Y.; Med. Dept. Univ. Buffalo, N. Y., May 3, 1892.

Calhoun, S. F., New York; Med. Dept. Univ. City of N. Y., May 9, 1895.

Calkins, Geo. H., N. Tonawanda, N. Y.; Med. Dept. Univ. Buffalo, N. Y., May 2, 1893.

Carveth, Annie E., Redlands; Trinity Univ., Ontario, Canada, June 27, 1893.

Catherwood, Clinton H., San Francisco; Dartmouth Med. Coll., N. H., Nov. 26, 1895.

Fehleisen, Frederick, San Francisco; Univ. of Wurzburg, Germany, July 16, 1877.

Forget, A. J., Los Angeles; Univ. of Lourain, Belgium, Feb. 16, 1894.

Harwood, Wm. E., Redlands; Rush Med. Coll., Ill., Feb. 24, 1880.

Hayward, Henderson, Los Angeles; Med. Dept. Georgetown Univ., D. C., March 2, 1869.

Kelley, G. Wallace, San Francisco; Harvard Med. Coll., Mass., June 26, 1878.

Laird, J. William, Pasadena; Baltimore Med. Coll., Md., April 15, 1891.

Lay, F. H., Golden Gate; Bellevue Hosp. Med. Coll., N. Y., March 1, 1878.

McClintock, Thos. R., Los Angeles; Med. Coll. of Ohio, March 1, 1870.

McCord, D. P., San Francisco; Marion-Sims Med. Coll., Mo., March 20, 1894.

Mennet, O. H., Los Angeles; Med. Coll. of Ohio, March 2, 1874.

Potts, J. S. (lieu certificate), San Jose; Coll. Phys. and Surg., Keokuk, Ia., Feb. 13, 1877.

Roby, Thomas A., Ventura; Jefferson Med. Coll., Pa., March 29, 1884.

Vreeland, H. E., Los Angeles; Rush Med. Coll., Ill., March 31, 1891.

Weir, F. A., Pasadena; Rush Med. Coll., Ill., Feb. 25, 1879.

Austin, Malcolm O., San Francisco; Cooper Med. Coll., Cal., Dec. 5, 1895.

Blodgett, Walter Le Roy, Sacramento; " " "

Boido, Rosa Meador Goodrich, S. F.; " " "

Burgess, Geo. W., San Francisco; " " "

Campbell, Edgar O., Santa Barbara; " " "

Carter, Richard Henry, Chico; " " "

Church, Frank H., San Francisco; " " "

Cross, Charles V., San Francisco; " " "

Crothers, Wm. H., San Jose; " " "

Dodge, Clarence W., Oakland; " " "

Dorr, Wm. R., San Francisco; " " "

Van Dyke, E. C., San Francisco; " " "

Fish, Mary A., San Rafael; " " "

Glaser, Edward F., San Francisco; " " "

Gray, Frank Pierce, San Francisco; " " "

Gregory, Lester C., San Francisco; " " "

Hablutzel, Chas. E., San Jose; " " "

Harms, Frederick W., Pleasanton; " " "

Harrison, Emily G., San Francisco; " " "

Hesser, Geo. T., Calistoga; " " "

Hill, Edmund E., San Francisco; " " "

Hughes, James V., San Francisco; " " "

Jordan Fisher Randall, Oakland; " " "

Kodama, Rimpey, San Francisco; " " "

Korts, Benj. F., San Francisco; " " "

Kusel, Eli Abraham, San Francisco; " " "

Mahoney, Margaret J., San Francisco; " " "

Meierdierks, Wm. A., San Francisco; " " "

Meinhard, Theodore L., San Francisco; " " "

Moore, John C., San Francisco;	Cooper Medical College,	Cal.,	Dec. 5, 1895
Nelson, Neal M., Alameda;	"	"	"
O'Connor, James H., San Francisco;	"	"	"
Olmstead, Amos C., Oakland;	"	"	"
Reese, R. E., Berkeley;	"	"	"
Rumwell, M. E., San Francisco;	"	"	"
Schlageter, A. J., San Francisco;	"	"	"
Sexton, Chas. R., University;	"	"	"
Walter, Henry F., San Francisco;	"	"	"
Walters, Harry S., San Francisco;	"	"	"
Wymore, W. W., San Francisco;	"	"	"
Partridge, Harry, San Francisco;	"	"	"

Chas. C. Wadsworth, M. D., Secretary,
518 Sutter Street, San Francisco, Cal.

An Ancient Fee Bill.

In a late number of *Le Progrès Medicale* appears the price list charged by the executioners of ancient Paris for their services to the State, in taking life, or cutting off an organ, of convicted culprits. The writer of the article has unfortunately omitted to affix the probable date of the schedule of prices, and he does not inform us when the polite Parisian ceased to deal out the terrible punishments of "those former days." There is one item, "the Gehenna torture," that is very suggestive of heat and suffocation, but the explanatory foot-note is not supplied. The executioner seems to have had two different prices for quartering a man:

AN EXECUTIONER'S PRICE LIST.

	Livres.
To boiling a malefactor in oil	48
To quartering him while alive	30
To affording a criminal passage from life to death by the sword	20
To breaking the body on the wheel	10
To fixing his head upon a pole	10
To cutting a man into four pieces	36
To hanging a culprit	20
To enshrouding the corpse	2
To impaling a living man	24
To burning a sorceress alive	28
To flaying a living man	28
To drowning a child murderess in a sack	24
To burying a suicide at cross-roads	20
To applying the torture	4
To applying the thumbscrew	2
To applying the buskins	4
To administering the Gehenna torture	10
To put a person in the pillory	2
To flogging	4
To branding with a hot iron	10
To cutting of the nose, the ears or the tongue	10

—*Journ. Am. Med. Assn.*

Extracts.

The Significance of Pain.

In a lecture at the Hôpital de la Charité, Professor Potain spoke of the value of pain in the diagnosis of disease, and stated that its absence usually made the prognosis more sombre, latent affections being grave because they develop freely without any warning to the patient. It is because of the absence of pain that many affections have remained so long obscure and have caused great ravages, such as endocarditis, chronic nephritis and aortitis. Certain diseases, usually painful, may sometimes exist without this symptom; in walking typhoid fever the pain is so slight that the patient can carry on his ordinary avocation until intestinal perforation occurs, causing rapid death. In pleurisy the pain, sometimes so great, may be absent, but the disease is none the less serious on that account. Cases of angina pectoris in which there is no pain are the most dangerous.

Certain diseases consist only of pain, such as gastralgia and enteralgia; in others pain is the predominating symptom. It should, therefore, be studied with the greatest care, and its characteristics fully determined. Its intensity is what naturally strikes the patient, but this is all proportionate to its cause, and depends upon individual conditions. It is well known that certain races are but slightly sensitive to pain, and that education plays a great part in this sensitiveness. A reliable physician states that there is at Chantilly a colony of English jockeys who, accustomed to horseback riding, are liable to numerous fractures, but seem to feel only slightly the pain caused by them; while their wives, with but rare exceptions, never utter a cry during delivery.

The intensity of pain is of value to the physician only when it is excessive; for instance, an intensely painful spot in the side may indicate gangrenous pleurisy; the appearance of peritoneal pain in typhoid fever may often indicate perforation of the intestines. The seat of pain has but little relation to the disease; thus the painful point in pleurisy is nearly always the same, no matter what may be the precise location of the inflammation. The only exception to this is the pleuritic pain of tuberculosis. Dorsal and substernal pain ordinarily indicates an affection of the œsophagus, but to make an exact diagnosis it is necessary to use the sound. Gastric pain indicates the location of the disease as a general rule, and the patients are not deceived when they complain of pain in the stomach. Disturbance of the biliary passages is generally marked by pain in the right hypochondrium, and colitis sometimes causes terrible pain beneath the umbilicus from one hypochondrium to the other. Nephritic colic causes pain along the corresponding ureter. Vesical pain is easily recognized because of the tenesmus which accompanies it. There are pains the seat of which is pathognomonic, such as angina pectoris, where it is prethoracic and radiates into the left arm and sometimes into both arms. To this rule, however, there are many exceptions. Hepatic colic may cause pain only in the epigastrium and simulate gastralgia, while epigastric pain is often related to alterations of the solar plexus, such as that due to aneurism of the abdominal aorta.

Reflex pain is also an important aid in diagnosis. It is necessary to bear in mind, in this connection, the dorsal pain in gastric affections; the scapulalgia of hepatic colic; the pain in the posterior portion of the deltoid region in disease of the liver; the irradiations of nephritic colic into the testicles and thighs; the brachial and cervical pains of angina pectoris; the costo-xiphoidal pain of diaphragmatic pleurisy and pericarditis. Rectal pain often extends to the thighs, especially in elderly, constipated men, and such pain should always call for a rectal examination. In affections of the colon pain is frequently felt in the præcordial region. Chronic colitis causes the arrest of the fæcal matter at the bend of the intestine between the transverse and descending colon, and the præcordial pain arising from this is a source of frequent errors in diagnosis. Of one hundred persons complaining of heart disease, about seventy have some affection of the colon. Ovaritis often gives rise to intercostal pain, and when the cause of a persistent neuralgia of this region in a woman cannot be found it is well to consider the possibility of ovarian trouble.

Pain upon pressure gives more precise information to the physician than any other. When this exists at the point of emergence of nerve-branches only, it indicates a neuralgia; when it exists along the entire course of the nerve, the case is one of neuritis. The absence of pain upon pressure in cases of spontaneous pain indicates its reflex nature.—*L' Union Médicale,* Nov. 22, 1894.—*Univ. Med. Journal.*

The Bacteriology of Rheumatism.

Dr. Saccaze (*Arch. Gen. de Med.*) has recently reported six cases of rheumatism which clearly indicate a causative relation of the staphylococcus to this disease. Dr. Saccaze remarks that "it is frequently possible, in case of acute articular rheumatism, to discover in the history of the case evidence of a lesion preceding the pain, and other symptoms whereby infection with the staphylococcus might have occurred." In four cases of the disease, rheumatism occurred consecutively after two attacks of sore throat in persons suffering from chronic hypertrophy of the tonsils. It is remarkable that these acute exacerbations of throat ailment are frequently observed in connection with the acute attacks of articular rheumatism. In the opinion of Dr. Saccaze, the general condition of the body which gives rise to the joint affection, occurs in these cases through the tonsils, which are constantly exposed to infection by the staphylococci which abound in the mouth.—*Jour. Med. Sciences.*

The Samuel D. Gross Prize.

The second Quinquennial Prize of One Thousand Dollars under the will of the late Samuel D. Gross, M. D., will be awarded January 1st, 1900. The conditions annexed by the testator are that the prize "Shall be awarded every five years to the writer of the best original essay, not exceeding one hundred and fifty printed pages, octavo, in length, illustrative of some subject in Surgical Pathology or Surgical Practice, founded upon original investigations, the candidates for the prize to be American citizens."

It is expressly stipulated that the successful competitor, who receives the prize, shall publish his essay in book form, and that he shall deposit one copy of the work in the Samuel D. Gross Library of the Philadelphia Academy of Surgery. The essays, which must be written by a single author in the English language, should be sent to Dr. J. Ewing Mears, 1429 Walnut Street, Philadelphia, before January 1, 1900.

Each essay must be distinguished by a motto, and accompanied by a sealed envelope bearing the same motto, and containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay. The committee will return the unsuccessful essays if reclaimed by their respective writers, or their agents, within one year. The committee reserve the right to make no award if the essays submitted are not considered worthy of the prize.

Dr. R. E. Bunker has removed his office and residence to 630 Sutter street.

Literary Department.

Under the charge of W. F. McNUTT, M.D., M.R.C.S., Edin., etc.
Professor Principles and Practice of Medicine in the Medical Department
University of California, etc.

MANUAL OF GYNECOLOGY. By HENRY T. BYFORD, M. D., Professor of Gynecology and Clinical Gynecology in the College of Physicians and Surgeons of Chicago; Professor of Clinical Gynecology in the Women's Medical School of Northwestern University; Professor of Gynecology in the Post-Graduate Medical School of Chicago. Containing 234 illustrations, many of which are original. Price, $2.50. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut St. 1895. For sale at the Popular Book Store, 10 Post St., San Francisco.

Dr. Byford has succeeded in making an excellent manual. The student and general practitioner will find it a convenient and readable book for ready reference. "The subject has been simplified by the use of two kinds of type, viz., a large type for essentials such as the student should master, and a small type for such amplification and addition of practical detail as may be of advantage for the practitioner, but which would burden the student's mind unnecessarily." The work consists of ten parts: Part 1, diagnosis and treatment; 2, development and anomalies of development; 3, functional and nervous diseases; 4, traumatic lesions of the genital tract; 5, displacements; 6, inflammatory lesions; 7, genital tuberculosis; 8, malignant diseases; 9, tumors of the female genital organs; 10, ectopic pregnancy, pelvic hæmatocele and pelvic hematoma. The print is good and the book is well illustrated.

SURGERY. A Practical Treatise with Special Reference to Treatment. By C. W. MANSELL MOULLIN, M. A., M. D., Oxon; Fellow of the Royal College of Surgeons; Surgeon and Lecturer on Physiology to the London Hospital, England. Assisted by various writers on special subjects, with 623 illustrations, many of which are printed in colors, about two hundred having been made from special drawings. Third edition, revised and edited by JOHN B. HAMILTON, M. D., Professor of the Principles of Surgery, Rush Medical College, Chicago; Professor of Surgery, Chicago Polyclinic; Surgeon, formerly supervising Surgeon-General, U. S. Marine Hospital Service. Price, $6. Philadelphia: P. Blakiston Son & Co., 1012 Walnut street. 1895. For sale by Popular Book Store, 10 Post St., San Francisco.

It is safe to recommend this as a good condensed single volume text-book on surgery. While it is necessarily condensed in giving many of the essentials of pathology and symptomology it goes more fully into the details of treatment, which makes it a "Practical Treatise with Special Reference to Treatment." The fact that it it revised and edited by Dr. John B. Hamilton is sufficient guarantee that the work is abreast of the times. It is fully and intelligently illustrated; some two hundred of the illustrations being original. It is not very well indexed, there is more in the book than the index indicates, for instance, sterilization of foods, clothing, etc., not to be found in the index. The book lacks what every surgery should include, viz.: a special chapter on asepticism and sterilization of instruments, of dressing, of hands and clothing of operators and assistants, of operating room, of patients, the technique of surgical dressing, ligatures and their preparation, etc. We are quite satisfied that this revised edition will be even more popular than the previous ones.

TAYLOR ON VENEREAL DISEASES. The Pathology and Treatment of Venereal Diseases. By ROBERT W. TAYLOR, A. M., M. D., Clinical Professor of Venereal Diseases in the College of Physicians and Surgeons, New York. In one very handsome octavo volume of 1,002 pages, with 230 engravings and 7 colored plates. Cloth, $5.50; leather, $6.50. Philadelphia: Lea Brothers & Co., publishers. 1895. For sale at Popular Book Store, 10 Post St., San Francisco.

The author of this work has exhibited great good judgment in dealing with his subject. The work is not loaded down with articles on obsolete theories. On the other hand it is in no sense a manual; while it is concise and explicit in its statements it covers the ground most thoroughly. For all practical purposes no practitioner needs to know more about the subject than is taught in these pages. The author has no hobbies or fads. He has no theories for which he is tracing facts to substantiate. Dr. Taylor is a conservatively progressive practitioner, a safe guide and teacher. We will venture the assertion that there is not a work in any language on this subject that is safer to follow than this one. The work consists of 87 chapters, 1,000 pages, and is divided into three parts. First, gonorrhœa and its complications. Part second, the chancroid or soft chancre. Part third, syphilis. While this branch of practice may be pursued as a specialty, it is unlike any of the other specialties inasmuch as its results invade every branch of practice. Every practitioner, general, medical, surgical or special, must acquaint himself with the etiology, diagnosis, prognosis and treatment of venereal

diseases. The fact that these diseases are amenable to treatment makes it all the more important that they should be diagnosed. To overlook or fail to be able to diagnose an incurable disease is always unfortunate, but in the case of a curable disease it is a crime. It gives us great pleasure to recommend this work to our readers. In fact we more than recommend it, we advise them to procure the book, read it and follow its teaching. The publishers have spared no pains to make their part of the book worthy of the text.

DUNGLISON'S DICTIONARY OF MEDICAL SCIENCE, 21st edition, with Appendix. Containing a full explanation of the various subjects and terms of Anatomy, Physiology, Medical Chemistry, Pharmacy, Pharmacology, Therapeutics, Medicine, Hygiene, Dietetics, Pathology, Surgery, Ophthalmology, Otology, Laryngology, Dermatology, Gynecology, Obstetrics, Pediatrics, Medical Jurisprudence and Dentistry, etc., etc. By ROBLEY DUNGLISON, M. D., LL. D., late Professor of Institutes of Medicine in the Jefferson Medical College of Philadelphia. Edited by RICHARD J. DUNGLISON, A. M., M. D. New (21st) edition, thoroughly revised, greatly enlarged and improved, with the pronunciation, accentuation, and derivation of the terms. In one magnificent imperial octavo volume of 1,225 pages. Cloth, $7.00; leather, $8.00. Thumb letter index for quick use, 75 cents extra. Lea Bros. & Co., publishers, Philadelphia. 1895. For sale by Popular Book Store, 10 Post St., San Francisco.

When this 21st edition was published two years ago, it contained forty-four thousand more words than the 20th edition. The appendix adds over two thousand words more, making forty-six thousand more words in this 21st than the 20th edition contained. It is very evident that the editor and publishers are determined that *Dunglison* shall continue to be what it has been for the past half century, viz., the Standard Medical Dictionary of the English language. Those who have the 21st edition can procure the appendix. Hereafter the appendix will be bound with the dictionary and with no extra charge.

HERRICK'S DIAGNOSIS. A Handbook of Medical Diagnosis. By JAMES B. HERRICK, M. D., Adjunct Professor of Medicine, Rush Medical College, Chicago. In one handsome 12 mo. volume of 429 pages, with 80 engravings, and 2 colored plates. Cloth, $2.50. Philadelphia: Lea Brothers & Co., publishers. 1895. For sale at Popular Book Store, 10 Post St., San Francisco.

The author has succeeded in compiling a handbook on diagnosis which necessarily underlies any continued success in treatment. The importance of diagnosis cannot be overestimated, it is the only means by which we can eliminate the element of

chance, and give the patient the assurance of skillful aid to which he is entitled in his medical adviser. The habit of diagnosing the disease before prescribing makes the difference between the success or failure of a professional life. To have a subject presented in its essential details cannot fail to be of use in refreshing knowledge in the exigencies of practice. The series of illustrations comprising many characteristic engravings in black and two plates in colors will supplement and enhance the practical value of the text. Dr. Herrick's book has been most carefully prepared and it is certain to be warmly appreciated.

MENTALLY DEFICIENT CHILDREN; Their Treatment and Training. By G. E. SHUTTLEWORTH, B. A., M. D., Ancaster House, Richmond Hill, Surrey, England; late Medical Superintendant Royal Albert Asylum for Idiots and Imbeciles; Fellow Medical Society of London; Member Neurological Harveian, West London Medico-Chirurgical Societies, etc. Published by H. K. Lewis, London, and on sale in America by the Blakistons of Philadelphia, by Colegrove of Chicago, and Popular Book Store, 10 Post street, San Francisco. Cloth, 60 cents.

The value of this timely little book is out of all proportion to its size. For years the general profession has vainly waited for a handy yet authentic resumé of the more important phases of idiocy and imbecility, and no better evidence exists of the need of a clear, concise and authoritative manual upon this subject than that offered by the confusion which exists in the classification and nomenclature of this special domain of mental alienation. Other departments of medicine have been so well written up that every practitioner is familiar with the several nosologies presented, but when the general practitioner begins to juggle and misuse and misapply the terms, classes and grades in referring to the various phases of mental defect or insufficiency, it is enough to make the specialist in these lines hold up his hands in horror. This book in a most readable style gives the latest and the most correct view of the subject, is most excellently illustrated with plates showing portraits of typical cases of abnormal brain development and of comparative cranial contours, and contains a very valuable bibliography. Its style, and the chapters relating to the education of feeble-minded children, commend it to the teacher as well as the physician. It should meet with a wide sale in this country owing to the great interest awakened within the past few years in the question of the best possible care and education of the mentally deficient. A. E. O.

ELEMENTARY TECHNIQUE IN HISTOLOGY AND BACTERIOLOGY. By ERNEST B. HOAG, A. B., B. S., Instructor in Zoology and Physiology, Throop Polytechnic Institute, Pasadena, California; and H. KAHN, Phar. M. (Mich.) Assistant Demonstrator in Bacteriology, Northwestern University Medical School, Chicago, 1895. E. H. Colegrave & Co., Chicago. For sale at the Popular Book Store, 10 Post St., San Francisco.

The authors have compiled this manual in elementary technique for the use of students who are beginning laboratory work in either histology or bacteriology. It is the arrangement of the contents that particularly commends itself to beginners. It is divided into two parts—first, the method of preparation of tissues and of examination in the histological laboratory, and secondly to the bacteriological examinations. The book will be found excellent for the purpose for which it is intended.

TWENTIETH CENTURY PRACTICE. An International Encyclopedia of Modern Medical Science. By leading authorities of Europe and America. Edited by THOMAS L. STEDMAN, M. D., New York City. In twenty volumes. Volume IV. Diseases of the Vascular System and Thyroid Gland. New York: William Wood and Company. 1895. For sale at Popular Book Store, 10 Post Street, San Francisco.

This fourth volume consists of 840 pages by four contributors; three of whom are English and one American. The first 454 pages are by Dr. J. T. Whittaker, Cincinnati, Professor of Medicine in Medical College of Ohio, on Diseases of the Heart and Pericardium. As might have been expected, Dr. Whittaker has presented this very important subject in a most interesting and able manner. This contribution alone as a work on diseases of the heart is worth more than the price of the volume. The chapter of about seventy pages on Neurosis of the Heart, is to be especially commended. We are pleased to see than he is a strong advocate for aspiration in pericarditis with effusion. The next one hundred pages are by Dr. A. E. Sansom, London, on Diseases of the Blood Vesselss. Of course, much is expected from so well-known an authority on these affections, and the reader will not be disappointed. The pages on Atheroma and on Aneurism are worthy of careful reading. The next forty pages by Dr. Bertrand Dawson, London, are on a subject that is too often neglected, viz: Diseases of the Lymphatic Vessels. The chapter is prepared with great care with the valuable addition of two pages of Bibliography. The fourth and last writer is Dr. Geo. R. Murray, New-Castle-on-Tyne. This last article is on Diseases of the Thyroid Gland, including Myxœdema, Cretinism, Exophthalmic Goitre, and Goitre, as well as Inflammation and Neoplasms, and lends especial interest to the volume. Every practitioner is anxious to learn the last authoritative words on those affections, and no one will be listened to with greater respect than Dr. Murray, who is so well-known as the author of " Thyroid Gland Treatment of Myxœdema." "Naturally, the author goes very fully into the history and mode of application of the thyroid treatment. This is the first time that the subject has ever been presented in systematic form, outside of journal articles, by the originator of the method. Some of the illustrations in this article, reproduced from photographs, showing the results of treatment, are very striking. This volume, in respect both to the importance of the subjects treated and the reputation of the authors, maintains the high standard of excellence set by those which have preceded it in the series."

Transactions of the American Physicians. Tenth Session, held at Washington, D. C., May 30th and 31st., 1895. Vol. X. Philadelphia: Printed for the Association. 1895. For sale at the Popular Book Store, 10 Post St., San Francisco.

This tenth meeting of the Association, judging from the character of the contents of this volume was a most successful one. Dr. William Osler (Johns Hopkins) was the President. There are twenty four articles, some of them by the very best men in the profession. In addition the discussions that followed in many instances are as interesting and important as the articles. Dr. A. Jacobi was elected President for the ensuing year. It is to be presumed that the next meeting will be at the same place, Washington, D. C., and same time, May 30th and 31st., as the time or place is not mentioned in the proceedings. The articles are a credit to the Association and will well repay a careful reading.

Myxœdema Cured by Ingestion of Thyroid Tablets.

Prof. Ewald: I present to you a woman who has been cured of myxœdema by thyroid treatment, which, however, was followed by glycosuria. James, in England, and several other observers have reported similar cases. The quantity of sugar excreted in the urine varies greatly and depends possibly on the diet. Whether the sugar consists of dextrose, pentose or galactose, I am unable to say, as all I have ascertained by my experiments is that, in the present case, we have to do with a dextrorotary substance.

The patient is well satisfied with the result obtained, greatly preferring glycosuria to the disease from which she suffered before.—*Med. Week.*

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Original Articles.

A PLEA FOR AMERICAN MEDICAL INSTITUTIONS.

By H. N. RUCKER, M. D., Oakland, Cal.

(Read before the Alameda County Medical Society, February 11th, 1896.)

The letter from Dr. Thorne in the January number of the PACIFIC MEDICAL JOURNAL, is suggestive. There was a time when Europe offered advantages in education that could not be found at home. The developmental period of a new country is political rather than along the lines of art and scientific culture. As government aid and philanthropic endowment are of vital importance in laying broad and sure foundations, there necessarily ensues a formative period in which scientific education is meagre and superficial. The cheap and hastily constructed buildings of a prosperous and growing city will, in time, give place to massive structures, rich in finish, and imposing in architectural design. Cosmopolitan civilization, enriched by the wisdom and culture of the Old World, and stimulated by love of scientific truth, has passed the probationary state in America. Schools and colleges founded and conducted as individual enterprises with a view to a finished education are fast passing away. Through liberal appropriations in the various States, and by generous bequests of philanthropists, the best inducements are offered in America for the brightest minds to engage in the cause of education. Can the universities of Europe offer any better encouragement, and are we to believe that the brightest intellects and best trained thinkers are to be found in the Old World only?

The purpose of this article is to deal with the medical aspect of the question. Dr. Thorne says: "The A. M., M. D. of California will ascertain at the university of Berlin,—and this ruling applies to all German universities,—that his prized and hard-earned degree is not even taken as evidence of any medical qualification." That, of course, is the German's prerogative which he has the right to exercise if he chooses, and in doing so he is simply dealing with the individual foreigner who has a penchant for seeking his superior knowledge. Such comity as between the two countries would hardly fail of resentment in restricted commercial relations; but with a large class of American doctors there is a smack of puerile serenity in the tacit admission that there is but one Mecca in the medical world. It is far from my intention to cast insinuation at the medical schools and medical profession of Germany. To her we are deeply indebted for some of the greatest strides in medical knowledge; but the time has arrived when, with our improved educational advantages, we are deserving of better treatment than we receive.

Our medical schools have, within the past few years, added very materially to the requirements of medical education. The matriculant must possess knowledge of the subjects embraced in a good English education. Attendance upon the regular course is necessary, and examinations at the close of each year are required. The leading colleges are raising the course to four and five years, and the student is getting the benefit of the best clinical and didactic instruction. Though the German student is required to extend his course of medical education over a longer period, yet it is questionable whether, with the time he devotes to "the imbibition of unlimited beer, in fencing and in fighting duels," he spends more time in actual study than does the American student. Under our present regime it requires patient, persevering, and unceasing toil, to fit one to pass the ordeal of examination for a medical diploma.

The best evidences of qualification in any particular calling are the results which come from trial among those of equal mental endowment. Compare the work of our physicians who have been educated in European universities with those who have received their education at home; then compare foreigners who have received diplomas in America with others who obtained authority to practice medicine before leaving the native country. In what essential do they differ? The time has passed when enlightened Europe can justly accuse us of ignorance or lack of scientific attainment. Why our physicians and schools are not recognized abroad is obviously our own fault; for the reason that so many of our physicians and students annually flocking to Europe, is an admission to the foreigner that Americans are constantly seeking advantages which are not offered at home, and yet they would spurn the acknowledgment. Self respect commands respect from others; and proper regard for our own means and methods will not fail in uprooting the sickly sentiment which prompts so many members of our profession to go abroad. Home patronage will foster and enlarge the usefulness and efficiency of home institutions and will convince Europeans that we have not only passed the fledgling age, but have donned the plumage of maturity.

Going to Europe will not put more brains in any one's head, and the added information that may be brought away might have been obtained at home with less expense and more of profit and encouragement to home enterprise. Of what profit can it be to a very large number of our physicians who make flying trips to Germany or France, rarely remaining two days in one place, and having no knowledge of the language spoken? It may be gratifying to the doctor, on returning, to insert in one of the daily papers a personal to the effect that Dr. ——— has returned from a visit to the universities and hospitals of Europe and may be found at the old stand, but do such come back better equipped to cope with disease? A six or eight weeks trip across the Atlantic never added much to the medical knowledge of any one, yet I have known of some who have made the round trip from the Pacific Coast within that limit. The same time spent at one of our great medical centers would be of infinitely greater advantage.

A pleasant acquaintance with Dr. Thorne, extending over many years, offers the excuse for friendly criticism of him that would not otherwise be presumed upon; and I am frank in saying that the doctor, through his example, discredits the cause of American medical education by his trip to German seats of learning. To those having a knowledge of his patriotic zeal, and his expressed loyalty and esteem for American institutions, his act does not seem consistent. He has ever been a credit to home production, and with his commendable estimate of American scholarship and the advantages that accrue therefrom, why adopt a course that will delay that recognition which we claim is our right?

A spirit of emulation and contact with our fellows is very necessary to mental growth. Interchange of thought and comparison of method among civilized nations is profitable; and likewise pleasant when the relations are mutual; but force the conviction that recognition of scientific attainment on the basis of equality is being ignored, and humiliation and chagrin must result. When the immortal Sims published to the world his discovery of a method of cure for vesico-vaginal fistula, how many Europeans crossed the Atlantic to do him honor or witness his extraordinary skill in operative surgery? Doubt and distrust pervaded the minds of medical men in Europe akin to that of Nathanael of old, who said: "Can there any good come out of Nazareth?" We are constrained to offer the answer of Philip: "Come and see." Those of our countrymen who have crossed the ocean out of curiosity for a sight of the renowed Lawson Tait could doubtless be numbered by hundreds. And yet it is but the awakening of the same spirit which prompts some of our people to brave the perils and discomforts of an ocean voyage, to traverse the barrenness of Palestine and the sands of Egypt, who have never communed with nature in Yosemite, heard the thunder of Niagara, or viewed the wonders of Yellowstone Park.

It is a matter of indifference whether Americans are permitted recognition and the privilege of medical practice in the various countries of Europe. It is the national policy of protection of their own physicians, of whom they have enough. The denial of reciprocity in this respect we have not the right to question. It is the humiliating insinuation that the medical sciences are not taught in America that appeals to our sense of pride, and which is unwarranted by our present medical status. While in conversation on this subject with an honored member of the profession, he said: "The dominant idea that a course of study abroad give prestige at home, is the reason why so many of our physicians and studen's go to Europe." This is the gist of the matter frankly expressed. Prestige at home! If the lay mind is nursing the delusion that only the best knowledge can be obtained in foreign lands, it is high time we set about the task of dissipating it. While the *reason* may be correct, the *idea* is false. Education necessary for the successful practice of medicine and surgery is all important; but the average layman is disposed to gauge the ability of physicians by their success rather than give serious consideration as to where the education was received. I am no advocate of exclusive methods, except so far as the justice of equal rights is involved. Let there be the freest interchange of medical literature, and all possible encouragement given to international medical congresses. In this way the best opportunities can be used to foster our claims for recognition. It cannot be gained in the humble attitude of a student.

In our larger cities post-graduate schools have long been in operation for the thorough practical training of members of our profession. They are indispensable in the dissemination of high class education, and we should avail ourselves of the advantages they afford. The faculties of these training schools are composed of experts in every line of work; men chosen for their capability and general fitness, their zeal and devotion in the cause which they represent; with whom the promise of success is the crowning reward for a life of self-sacrifice, diligence and labor; whose aim and ambition is the ultimatum of effort in the realm of truth. Such is the standard of excellence to which medical education has been raised in America; and that our own people fail to appreciate this fact, is not the true reason why so many go in search of strange gods. Encouraged by increased patronage which these institutions merit, and a still better state of perfection will be reached.

We have not grown so wise, nor will we ever reach that state of perfection when the achievements of other progressive nations will not be of service to us; but this does not alter the fact that our own claim to medical culture is worthy of respectful attention. It is quite unnecessary to enter into detail of the triumphs of genius in American medical history. To dilate upon a fact so well established would not add force to the argument. Dr. Thorne is right in advising our medical students to stay at home, and the admonition will equally apply to our physicians.

With the organic law so changed as to give us protection from the encroachment of physicians educated abroad, and with concerted action in maintaining our present standard, we will soon command the respect and recognition which is our due.

524 Thirteenth Street.

EVERY FATAL CASE OF TYPHOID, says Mr. Ernest Hart, is, in fact, a violent death, an example of water poisoning, and should be the subject of sanitary inquest.

TRANSMISSION OF SOUND AND DISEASE.

By EMIL WESCHCKE, Ph. G., M. D., San Luis Obispo, Cal.

Hygiene and general prophylactic medicine have cast the search-light of investigation into most avenues of life, till the public have grasped the fundamental truths of disease and evaded the latter by ordinary precautions. We, as physicians, have an ally in the sanitary plumber, in the meat and milk inspector, and by educating these to consider prevention of disease we benefit the public far more than were we afterward to cure them of a malady they now have learned to avoid. Yet our work is incomplete and has been confined to the more glaring evils extant, and it is my province to draw attention to a danger hitherto little appreciated and not at all combated.

This danger lurks in the mouth-piece of telephones and speaking tubes, and depends on the fact that the same, primarily a transmitter of the voice, becomes at the same time a receiver of the breath and its noxious qualities. A cursory examination of any telephone mouth-piece, either the old-fashioned Blake transmitter or the present funnel-shaped one, will reveal a deposit of dust on the rim and a composite accumulation more filthy in appearance and characteristics, on and about the metallic diaphragm in the interior. What this deposit consists of, the microscope reveals. I have found predominant in ordinary business telephones, remnants of tobacco, hair and food, principally meat, kept moist by constant use of the telephone. Even the odor of a speaker's breath clings tenaciously to such a mouth-piece, as the deposit already there absorbs the qualities of any breath thrown against it. In offices where men and women are employed, I have had the latter tell me that the tobacco odor about the telephone was so persistent as to almost nauseate them when they used the instrument, and in a public office in Los Angeles, where an expert operator was a confirmed consumptive, the danger to others was so apparent that his discharge was called for and granted.

To fully estimate the dangers existent, it becomes necessary to consider methods of disease transmission. Prime factors in this procedure are germs, and these are distributed either by inhalation, deglutition or absorption, yet the contagium of a malady may choose one or all of these methods. To make the telephone mouth-piece a factor in such transmission it is absolutely necessary that a culture-ground for disease factors must exist, and an analysis of a deposit spoken of, furnishes sufficient proof.

The ordinary speaker approaches a telephone close enough to often push his lips into the rim of the instrument. His breath is thrown against the sides of the mouth-piece and concentrates itself or condenses on the diaphragm in the interior. Spittle from his mouth and other secretions are deposited there, remnants of food, as meat, cheese or bread, and these latter furnish the nidus for a colony of germs, kept active by constantly added moisture and detritus. Fermentative and putrefactive processes naturally ensue, and whereas these are comparatively benign in their character, is it possible to exclude pernicious bacteria, those of disease?

We know that the bacillus of diphtheria and scarlatina, granted, as seems plausible, that the latter disease is due to a germ, and consumption, are transmitted chiefly by inhalation or exhalation. Austin Flint claimed contraction of phthisis possible by mere inhalation of a tuberculous breath. Diphtheritic patients in a primary stage, before systemic disturbances ensue, still pursue their ordinary vocation, as do those of scarlatina, and we know that in diphtheria, the Lœffler bacillus can yet be found in the buccal and nasal secretions even after recovery from the disease itself, although no re-infection under these circumstances results. This demonstrates the danger of depositing the contagium from the mouth and nose of those apparently well, and it thrives on the already placed nutritive detritus from other sources.

As regards consumption, its transmissibility by means of the telephone mouth-piece is accomplished in various ways. Veraguth proved its transmission possible by the inhalation of the bacilli held in a moist spray and tubercular spittle conforms to such a mixture, and as we unfortunately have no laws compelling isolation or confinement of the consumptive, we see what a terrible danger can and does result from the unprotected use of the telephone by such. The dried sputa when inhaled is, of course, the main danger, yet the spittle thrown by a coughing consumptive into the mouth-piece will dry to some extent, and even if its bacilli do not grow in such surroundings or under such conditions, they do not lose their vitality. A moist sputum may come in contact with the lips of another speaker and be swallowed or absorbed by the mucous membrane of the mouth and infection result thereby.

Infection by absorption may well be demonstrated by the contagium of syphilis and, I make bold to say, cancer. Syphilis is disseminated to an extent absolutely appalling. Its primary and secondary stages are easily concealed and its vulgar form of transmission stigmatizes it in the eyes of the general public as a comparatively rare disease, belonging outside the circle of the educated and refined. How easily do we as physicians on superficial examination mistake a syphilitic stomatitis for an ordinary apthous one, and yet does the slime from a mucous patch deposited on a telephone transmitter, in appearance only a spot of innoxious character, hold menace of untold ills. Cases are on record where such slime deposited on a drinking-cup caused transmission of the disease, no doubt due to absorption by a fissured lip, and that the virus is immediately penetrative is proved by the fact that cases of venereal infection have occurred in spite of simultaneous application of drugs otherwise capable of preventing and destroying the initial chancre.

Cancer is in many instances allied to syphilis, and the first authentic record extant that I know of regarding its direct transmissibility, occurred in the person of Dr. Burnett, for many years house surgeon of Bellevue Hospital. He contracted the disease from a woman whose tongue he cauterized with nitrate of silver, scratching his cheek while doing so. A cancer soon developed, necessitating operation, but metastasis had taken place and the doctor died of cancer of the liver. Dr. Roland D. Jones ascertained that the woman, who afterward had her tongue cut out, contracted the disease from a speaking-tube in the house of her employer, who was a cancer sufferer. The serous or sanguinolent discharge from a cancer about the lip or face may easily be deposited on a telephone mouth piece, hence the danger, yet perhaps more readily transmitted are ordinary skin blemishes.

Unna regards eczema as of parasitic origin, and, as the fungi causative of most such troubles thrive easily, they are readily transferred. This is at once apparent with barber's itch and ringworm, especially with the former where tubercles break down and give exit to a mucoid, puriform discharge, highly contagious.

I will yet consider a trouble, non-parasitic in its nature, yet partaking of the physical character of cancer and the microscopical one of tuberculosis, that is lupus. Situated upon the face and especially near the mouth, contagious in its character, have we any doubt regarding its transmissibility by absorption through a like area ?

We have seen from the foregoing how easily some of the most loathsome diseases may be transmitted, doubly easily so, because transmitted by an apparently harmless medium, the public telephone.

Investigation has as yet been too limited to absolutely establish classical cases for each proposition detailed, yet recognition of the grave dangers extant, has caused me to cast about for a remedy. In surgical practice I have used an antiseptic gauze, consisting of several layers of silk thoroughly impregnated with a solution that would be as powerful as mercury bichloride and yet lack its poisonous and corrosive properties. I compounded therefore the following prescription, which forms an oleaginous liquid well suited for impregnation of a porous fabric.

℞	Hydronapthol		
	Olei cassiæ veri aa	ʒi	
	Acidi salicylici		
	Phenoli		
	Mentholi		
	Camphoræ		
	Eucalyptoli aa	ʒii	
	Terebinth. canad.	℥i	
	Olei tereb. rect. ad	℥iv.	M.

The above antiseptic lotion I have found free from poisonous characteristics and especially applicable to wounds and ulcers requiring a stimulant antiseptic, and when the transmission of disease by the telephone mouth-piece came to my mind, I constructed a circular disk out of my gauze, held in a suitable frame to cover the instrument. Thereby was created at once a mechanical as well as a chemical barrier between the filthy deposit already in the instrumental transmitter, and the speaker's lips, and it guarded the mouth-piece from receiving a new deposit, possibly containing disease bacteria. Thus, from preventing egress as well as ingress of noxious agents, I considered an important danger done away with, but further, as an analysis of the formula employed and the manner of impregnation as practiced in the preparation of the silk for this special purpose shows, the power of the used antiseptics and bactericides is sufficient to neutralize the pernicious activity of the potent disease microbes spoken of.

In estimating the modus operandi of what I call an antiseptic diaphragm for telephones, we must consider in the first place the potency of the drugs employed, the part they have to perform in disease neutralization, and the manner of their employment.

It is far easier to combat disease by chemical means outside the human body, than to fight the same or its causative agents when in possession of the economy; hence, by placing my medicaments in an ideal position to attack the germs of contagious maladies as we find them harbored in the telephone transmitter, they exert an advantageous influence otherwise unattainable or to a lesser degree. Through an antiseptic glue such as impregnates the diaphragm, osmosis of moisture or disease factors is retarded, if not entirely prohibited, and the bactericides employed have ample oppertunity to exert their power until their entire volatilization results.

The gauze does not interfere with the transmission of sound, although it prevents filtration of dust or water, and it seems therefore peculiarly adaptable for the purpose proposed for it, and as it is only too apparent that disease transmission by the instrument is certain, we should employ some means to counteract it.

"SOME CASES IN ETHICS."

By W. C. COOPER, M. D.

The scholarly and altogether excellent paper read before the San Francisco County Medical Society, Dec. 10, 1895, by Dr. S. S. Herrick, contains questions in ethics which should elicit careful discussion. By reference to the article in the February issue of this journal, the reader will be prepared to intelligently follow such remarks as the writer may make on the subject.

If, in the broadest and most humane view of a question, the end certainly justifies the means, then a failure to apply the means is morally wrong. Manifold applications of this proposition occur, particularly in surgery. In the social realm, adaptations of the principle are frequent and varied. In social relationships, honesty is *not* always the best policy. Corvisart was more heroic than wise and good. *Actually* any other child of good parentage was as much entitled to the throne of France as would have been a son or daughter of Napoleon and Josephine. The inheritance of the throne in either case would have depended, under final analysis, upon "the accident of birth."

A successor to Napoleon, innocent of Napoleonic blood, would have been an immeasurable blessing, not only to France, but to the whole civilized world. Corvisart's deference to right in the abstract outraged a right in the concrete which all the conscientiousness in the world could not have atoned for. Josephine, the one central jewel of high life in that age and place, was sacrificed. Sweeter, and more sacred than all the patriotism of the period, was this lovely woman's devotion. Corvisart wrecked her life.

If Morell Mackenzie was moved to his course by the gentle pleadings of the beloved Frederick, rather than by the ambitious desires of either Victoria, he did right. "Unzer Fritz" was capable of risking his life even, for his wife's sake, and his life belonged to himself more than to the nation. Conceding that he understood the whole situation, his wishes should have been deferred to. It is nearly certain, however, that the great specialist's courtierism overrode his ethical convictions. In this case, he violated moral, as well as medical ethics, and was guilty of a disgusting exhibition of toadyism.

Cases similar to that of Mr. W., of Texas, come up frequently. If Mr. W. was blindly in love, no warning would keep him from marrying the lady of his choice. He would have married anyhow, soothing himself with the conclusion that if anything were wrong, it would almost certainly be susceptible of correction. Whatever the result, he would have ever after regarded his informant as an impudent meddler. The writer has had some very unpleasant experiences along this line, and knows whereof he speaks.

In the San Francisco case, it certainly makes no difference whether the husband was familiar with his wife's weakness or not. Dr. V. was either an immitigable jackass, or sharp scoundrel. "You pays your money and takes your choice." He is not to be copied, under either hypothesis. Dr. X. preferred a clean-front character with a frame cottage annex, to a stone-front house with a characterless annex. Dr. X. was right. Outside of business, honesty is the best policy only when subservient to the lesser of two evils.

Even if virtue were not its own reward (which it is), its practice pays, in blessings extraneous to conscience, a thousand times better than vice does—in the long run.

Cleves, Ohio.

Sections

MEDICINE.

In charge of SAM'L O. L. POTTER, M.D., M. R. C. P. L.

Raynaud's Disease.—Mr. T. H. Marsh, Senior House Surgeon of the Macclesfield Infirmary, reports the following notes of a well-marked case of this rare affection.

W. G., aged 28, a quarryman, came as an out-patient. He stated that up to last winter he had always enjoyed excellent health, never having lost a day's work from sickness. He had never been subject to chilblains. During the severe weather of last winter whilst handling stone with his bare hands they had both suddenly "gone dead," becoming first white and painful, then dusky and quite numb. He went home being unable to continue his work. Next morning he noticed small blisters on several fingers which burst, leaving slowly healing sores. Since then he has been subject to periodical attacks of "dead hands," and with the onset of the cold weather these attacks became so frequent and severe as to threaten permanently to incapacitate him from following his employment. Each attack lasted for some hours, complete restoration ensuing usually; occasionally blebs formed on one or more fingers, which were followed by intractable sores. When the patient was seen the fingers were of a dusky purple color and quite anæsthetic, there were cicatrices on the tips of several of the fingers. The rest of the hands had a mottled appearance. The lobules of the ears were dusky, and sensation was much diminished. The pulses at the wrists felt normal. The urine was normal. The patient stated that during the attack his fingers felt numb and cold, and that when the circulation was becoming restored there was a good deal of burning and aching, feeling at times, "as though the fingers were being cut off." The general health was not materially affected. He was ordered to wear thick woolen gloves, to avoid exposing himself as far as possible to cold weather, and during the attack to keep in the house. Citrate of iron and ammonia, arsenic, belladonna, and nitro-glycerin were prescribed. He has now been under treatment for two months, and during that time he has improved considerably. The attacks have become much less frequent. He is still, however, unable to work during the very cold weather. As he has not yet consented to become an in-patient, the galvanic current has not been tried.

Raynaud's disease is, I believe, rarely seen in men, the sufferers being usually nervous or anæmic women. In this case the onset of the attacks seems traceable very definitely to exposure to cold.—*Brit. Med. Jour.*

Treatment of Pneumonia.—The treatment of pneumonia by the local application of cold is now recognized and adopted by many physicians. The writings of Dr. Mays of Philadelphia on this subject are well known. Nearly two years ago he presented a collection of fifty cases of acute pneumonia treated in this way, and then extended a general invitation to the profession for reports of cases of pneumonia treated by the local application of cold. He received 145 additional reports, making a total of 195 cases, and has recently published a summary of these cases. Without paying attention to statistics of sex, age, range of temperature, &c., we pass to the mortality and to Dr. Mays' comments thereon. Among the 195 cases there were 7 deaths—4 males and 3 females—or a mortality of only 3.58 per cent. The oldest of these was seventy-four, and the youngest was sixteen years. Three were cases of double and four of single pneumonia. Dr. Mays remarks that, whatever opinion we may hold in regard to the value of any treatment, it is quite obvious that in the long run the verdict will favor that one which shows the smallest mortality rate; the other details, the reports of numerous observers, give the mortality from pneumonia under various methods of treatment, which vary from 30 per cent to nothing. What conclusions, he asks, are were to draw from such a varying death-rate? Are we to believe that all patients suffering from pneumonia recover under certain methods of treatment, and that a large proportion of them will necessarily die under others? No one would be justified in making quite such a reckless assertion, yet it must be admitted that the truth lies somewhere between these two extremes. It is a natural question to ask what proportion get well under no treatment whatever, and what proportion die under such circumstances. In 1844, 1845, and 1846 Dr. Dietl, a Viennese physician, treated 189 cases of pneumonia practically without medicine, with a death-rate of 7.4 per cent. From 1847 to 1850 he treated a second series of 750 cases, with a death-rate of 9.2 per cent. Dr. Mays quotes also from homœopathic hospitals, regarding the treatment there adopted as equivalent to the "let alone or do-nothing treatment." The mortality in these institutions varied from 7.3 to 12.55 per cent; if these figures are reliable—and there is no evidence that they are not—they show that, as a rule, the natural tendency to recovery in pneumonia is about 90 per cent. But these figures would only seem to apply to an ordinary aggregate of favorable or unfavorable cases of pneumonia, and not to exceptional instances like those which are met with in fatal epidemics of pneumonia, or in a large number of successive cases of alcoholic, senile, or latent pneumonia. Dr. Mays compares the results of the ice-cold treatment of pneumonia with those which have been obtained from other forms of treatment, and maintains that the former are infinitely more satisfactory than the latter, for cold, he says, has a marked and decided influence on the pneumonic process, not only in bringing it to a favorable termination, but in materially shortening its course. He summarizes the action of cold in comparing the chief dangers from pneumonia thus: "First of all it reduces the pyrexia, strengthens the pulse, tones up the heart, diminishes the pain in the chest, alleviates the difficulty of breathing, and gives greater comfort to the patient. In virtue of its power to stimulate nerve functions and to contract small blood-vessels it promotes the pulmonary circulation, relieves stasis, hastens resolution and disperses the products of exudation."—*Lancet.*

Infectious Pneumonia.—In reporting upon an epidemic of diphtheria at Flint Dr. Reece, one of the medical inspectors of the Local Government Board, makes mention of an interesting outbreak of a pneumonic character, to which his attention had been directed. The disease made its appearance in the town while the population were suffering severely from privation and want, and while the town was undergoing a visitation of influenza. All the signs of typical pneumonia were present in the cases, the temperature rapidly rising to and remaining at 104° or 105° F. When death took place it occurred generally in the first four days of illness. The first three cases all occurred in one house. A young man, his mother (who nursed him), and an old man were attacked at short intervals of time, and all died. There were in all some 35 attacks heard of, and as many as 20 deaths recorded as due to pneumonia from January to July 9th last. They were widely scattered for the most part, having little or no relation with each other, though certain of them occurred within a small radius, and in families, giving reason to suppppose that the malady had infective properties. Local opinion was opposed to the idea of its being typhus fever. Several deaths were put down to pneumonia as a sequela to influenza. Omitting cases of a doubtful nature, the ages of the fatal attacks average 41 years, and of the non-fatal cases about 34 years. One medical man, who was practising during the typhus epidemic in Flint in 1887, declared that the clinical features of the "pneumonia" were unlike those of typhus fever.—*Brit. Med. Jour.*

Cervical Pachymeningitis.—At the Manchester Medical Society Dr. Leech showed a patient who first came under his care nineteen years ago, being then fifteen years old. He was suffering from loss of power over both arms and the left leg. Prior to the paralysis he had an abscess at the back of his neck, and through a sinus which resulted a piece of bone of considerable size had been discharged. Soon after admission to the infirmary power was entirely lost in the arms and legs, the muscles were rigid, the deep reflexes much exaggerated, and tremors were easily produced. The muscles of the upper extremity were wasted, and there was characteristic deformity of the hands. He had incontinence of urine and some anæsthesia. The body remained completely paralyzed for many months, yet eventually he recovered. He could not stand for two years, and three years elapsed before he could walk. For sixteen years he has remained well and able to work. The right hand is a little deformed, and the reflexes are unduly marked, otherwise he is in good health.—*Brit. Med. Jour.*

Alcoholic Neuritis.—At the Oxford Medical Society Dr. Neil presented notes of an interesting case of this disease with prominent mental symptoms. The patient, a middle aged widow, developed drinking habits from the medical prescription of alcohol for neuralgia. After some years insidious symptoms began to appear, which were suddenly developed in an acute form by the shock of a severe fall. There was anæsthesia of the feet and hands, tenderness of certain muscles of the legs and arms, and slight muscular atrophy. There was inco-ordination of the muscles of the upper and lower limbs and of speech. There were hallucinations of all the senses, and delusional beliefs connected with the hallucinations. The memory was a wreck, and there was a good deal of emotional agitation. The supply of alcohol was cut off. Attention was given to alimentation, small doses of liq. strychninæ were ordered, and ½ drachm of liq. morphinæ at night. In six months the symptoms had disappeared, except a trace of numbness in the hands and a considerable weakness of memory. This last would probably be permanent in some degree. The points of interest in the case were: the formation of drinking habits from a medical prescription, the apparently small quantity required to cause the disease, the onset of acute symptoms after a severe fall, and the predominence of mental derangement.—*Brit. Med. Jour.*

Addison's Disease.—The treatment of this disease by causing the patient to eat the adrenal bodies of a sheep has been suggested by more than one observer, and some successful cases have been reported. Another case is published by Dr. C. G. Stockton, being that of a married woman aged forty. It was said that her mother suffered from some affection resembling that for which the daughter now sought relief. The history of her illness was that for three years she had complained of the symptoms of Addison's disease, weakness, vomiting, loss of flesh, great muscular debility, and intense bronzing of the skin, which over the regions naturally pigmented presented the color of dark mahogany. There was also unnatural pigmentation of the mucous membrane of the lips, cheeks, and pharynx. The gastric contents on examination showed an absence of odor and mucus; the acidity was very faint; hydrochloric acid was absent and lactic acid appeared as a mere trace. There was some diarrhœa. Both kidneys were movable. Above the left kidney, closely connected with it, moving with the kidney, yet movable while the kidney was held still, was an irregularly shaped body, about the size of an hen's egg, which was slightly tender upon pressure. It was presumed to be a diseased adrenal. The pulse was somewhat slow and feeble, and at times very infrequent. Examination of the blood showed 1,800,000 red corpuscles to the cubic millimetre. The hæmoglobin was 30 per cent. There was marked leucocytosis, and also poikilocytosis. The patient had for some months been taking iron and arsenic. These remedies were continued, and in addition she was advised to inhale five gallons of oxygen gas three times daily and to eat daily two uncooked adrenals from a sheep. The treatment was commenced on June 23rd, and on July 6th the patient returned and showed great improvement in color and general appearance. Her spirits had returned with her appetite. She was hungry for the first time in five years, she said. There was a diminution of the pigmentation, as well as a decided increase in strength; the red blood cells had risen to 3,000,000 to the cubic millimetre; the abnormal forms had much decreased in number. The improvement steadily progressed, and on Sept. 14th there were 4,000,000 red blood cells to the cubic millimetre and 80 per cent of hæmoglobin. On Sept. 27th the contents of the stomach were again examined, but no change for the better could be discovered in her digestion although she had gained six pounds in weight. The pigmentation had almost disappeared from the hands, face, and breasts. The areolæ of the nipples were no darker than is common with women who have borne children. The most striking improvement was seen in the pulse, which was large, strong, and frequent. The blood pressure was considerably above that of health, but it did not show that high tension mentioned by Professor Schaefer and Dr. Oliver. The glands were prepared as a sandwich, and three were occasionally taken without causing discomfort to the patient. On Oct. 1st she was in better health than she had been for five years, and all medication had been withdrawn, save hydrochloric acid and pepsin. Dr. Stockton remarks that an adrenal that is palpable in a woman forty years of age is very suggestive of malignancy; but the results of the examinations of the blood afford the hope that the adrenal disease is not carcinomatous in nature.—*Med. News.*

Syphilitic Hæmatoma.—Dr. Hahn has published the particulars of a case of this rare affection of the dura mater. The patient was a man aged thirty-six, who had had syphilis about ten years before the onset of his nervous symptoms. These began with attacks of giddiness and severe headache, while his character underwent a great change. He finally had an attack of giddiness with loss of consciousness, and on the following day it was noticed that there was slight left ptosis, deviation of the tongue to the left on protrusion, deficient movements of the palate, indistinct articulation, and exaggerated reflexes. A few days later the following symptoms were also observed—viz , weakness of the right hand, diminution in the reflexes (especially of the knee-jerk on the right side), slight sensory disturbance, and impairment of hearing. He died about two weeks later comatose, having had previously some irregularity of breathing. At the necropsy it was found that over the whole of the left hemisphere, between the dura mater and pia mater, there was a thick layer of blood-clot; while on the right the dura mater was smooth, the pia mater being thickened and the convolutions flattened. At the base the pia mater was thickened, as well as in the sylvian fissure, while the basilar and the carotid arteries were atheromatous. The left third nerve was flattened and apparently destroyed.—*Deut. Med. Woch.*

Etiology of Paresis.—In a paper read at the last meeting of the "Psychiatric Club" in Prague, Dr. Hirschl, one of Krafft-Ebing's assistants, argues that paralysis of the insane is a manifestation of the third stage of syphilis. In the reports of 200 cases he finds the other etiological factors hitherto accepted wholly insignificant; on the contrary, syphilis had preceded in a larger percentage of cases than even in patients attending Professor Lang's clinic suffering from gummatous processes in different parts of the body. As to the inefficaciousness of antisyphilitic treatment, Dr. Hirschl points out the fact that gummata can only be replaced by cicatricial tissue. A man with post-gummatous scars on his arm may still be looked at as generally healthy; defects in his brain cortex, though filled up by connective tissue, make him paralytic in a remission. Hirschl sees nothing in microscopical changes that could not be taken as an effect of syphilis, the whole affection being, then, one of encephalitis syphilitica, ending in atrophia cerebro-syphilitica.—*Vienna correspondence of Brit. Med. Jour.*

DERMATOLGY.

Under the charge of MARTIN REGENSBURGER, M. D.,
Professor of Skin and Venereal Diseases, Post-Graduate School Medical Department University of California; Consultant for Diseases of the Skin to the German Hospital.

Treatment of Bubo by Injection of Iodoformed Vaseline.—After having emptied the pus cavity by puncture and aspiration it is washed out with a sublimate solution (1:1000) and then iodoformed vaseline (10 per cent), which is liquefied in warm water, is injected in sufficient quantity to fill the cavity to distension. The mass solidifies and the result is good. The pain disappears almost immediately after injection and the cure is complete in about 8 days. In cases where the healing process is slow the injection of the iodoform vaseline may be repeated two or three days after the first injection.

Liniment for Eczema.—

℞ Zinc. oxyde	20.0
Pulv. acid boracic	10.0
Bismuth subnitr	5.0
Ol. olivæ	85.0

S.—Externally.

This liniment generally achieves its purpose in eczema, especially in particularly rebellious eruptions.—*Sem. Medicale.*

Local Anæsthesia of the Skin.—Deubreuilh employs a 2 per cent solution of cocaine-hydrochlorate in a mixture of equal parts of distilled water and cherry-laurel water and injects it endermically into the uppermost and thickest layers of the skin. One-half syringe-full is sufficient to anæsthetise an area three centimetres in length by one centimetre in width. The anæsthesia is usually complete and takes effect immediately after injection, lasting from 15 to 20 minutes. There is no danger if the dose does not exceed six centigrammes.

Treatment of Urticaria.—(Brocq.)

Acid carbolic	1 gramme
Essent. menth. pip.	1 gramme
Zinc oxyde	20 grammes
Lanolin.	20 grammes
Petrolat.	60 grammes

S.—Apply externally.

At the same time give from 2 to 10 of the following pills every day:

Quinine. hydrochlorat	10 centigrammes
Ergotine	10 centigrammes
Extract belladonna	1–2 centigrammes.

Treatment for Baldness.—(Rochon, *Medecine Moderne*).—Recognizing the solubility of castor oil in absolute alcohol and in acetic acid the following formulæ have been used successfully in the treatment of so-called idiopathic alopecia accompanied with or without seborrhœa, and in alopecias following severe maladies.

℞ Ol. ricini.	
Spirit vin rectificat āā	60 grammes
Acid tannic	2 grammes

Essence of thyme, enough to perfume.

Allow this to soak into the scalp every night. Twice a week substitute the following solution:

℞	Ol. ricini.	
	Crystalline acid. acet. āā	60 grammes
	Acid. salicyl.	1 gramme.
	Essence of geranium to perfume.	

Wash the scalp once or twice a week with soft soap.

In place of prescribing the two solutions above mentioned separately the following combination can be used.

℞	Ol. ricini.	
	Spirit. vin. absolut. āā	60 grammes
	Acid. acet. crystallis.	5 to 10 grammes
	Acid. salicyl.	2 grammes.

The tannic and salicyc. acids can be replaced according to the case by other soluble antiseptics. In the place of alcohol, sublimate (in syphilitic alopecia) in the place of acetic acid, thymol, etc., can be used. These formulæ may also be of benefit in psoriatic alopecias.

Treatment of Seborrhic Eczema in Children.—Remove the crusts with oil and wash with soap and water and then apply compresses of cheesecloth soaked in the following solution:

℞	Resorcin.	2 grammes
	Boiled water	350 grammes.

During the night apply the following ointment:

Bals. peru.	1 gramme
Petrolat.	30 grammes.

Treatment of Alopecia Syphilitica.—1st. Cut the hair very short. 2nd. Wash the scalp with soap every morning. 3rd. Apply the following pomade:

℞	Acid. salicylic	5 grammes
	Sulph. precipit.	10 grammes
	Lanolin.	
	Petrolat. aa	50 grammes.
	Perfume.	

4th. At night brush the scalp with a soft brush and shampoo with:

℞	Spirit. rosemarin	100 grammes
	Tr. cantharid.	10 grammes
	Acid. salicyl.	1 gramme.

—Besnier.

Treatment of Warts.—(Palm.)

℞	Acid trichloracetic	9 grammes
	Alcohol	1 gramme.

S.—Apply twice a day. Or

℞	Acid salicylic	1 part
	Acid lactic	1 part
	Collodion	2 parts.

S.—Apply twice a day.

Chlorate of Potash, as a Tooth Powder.—Unna recommends chlorate of potash as a tooth-powder and at the same time as an excellent disinfectant for the oral cavity. The brush is dipped into the powder as into any other powder, and the teeth are brushed lightly, the powder forming a paste with the saliva. Immediately afterwards the mouth is rinsed out with water. For some time a salty taste remains which is not unpleasant. Unna knows of no remedy which abates bad breath due to decomposition of food between the teeth and in the pharynx after remaining in the cavities over night. He had many such cases that sought his advice and all were cured by above treatment. There are cases though, when a sore mouth or a fissure becomes very painful if the pure chlorate of potash is used, and in those cases he recommends a paste to be made of carbonate of lime, rhizoma, iridis, soap and glycerine equally mixed, then add the chlorate of potash to make a 50 per cent paste.

Alopecia.—Samter (Koenigsberg) reports good results from the use of a 10 per cent chrysarobin ointment, whereas after using the faradic current for weeks no results seem to have been achieved. Prophylactically strict antiseptic rules should be carried out in the barber shops.

Alumnol in Gonorrhœa.—Schwimmer used alumnol in the form of injections, irrigation and instillations. (0.5 to 5 per cent.) Its effect in chronic cases seemed to be a better one than in acute cases. In women tampons soaked in the solution were used more or less successfully.—*Arch. f. Dermat.*, 29.

Arsenic.—According to Dyer, this remedy should not be used without a certain amount of judgment in *all* diseases of the skin. Small doses check the change of material in the tissues while large ones have the opposite effect. On the skin the effect of the remedy expresses itself by heat, redness and formation of vesicles. The results from arsenic are good in psoriasis, chronic eczema, lichen, pemphigus, dermatitis herpetiformis and other vesicular eruptions. Arsenic acts as a detriment in acute inflammatory disturbances such as pruritus, herpes zoster, erythema and urticaria. Arsenic should not be the first, but one of the last remedies given in diseases of the skin.—*Mon. f. D.*, XX.

Drug Eruptions.—According to Morel Lavallèe (*Derm. Z. II*) drug eruptions do not make their appearance, until after a long continued use of certain remedies. The patient often seems to stand small doses well, but this does not make him proof against larger ones. The symptoms of the skin are ofttimes very severe ones, as, for instance, in hydrargyria.

A great many cases of eruption due to antipyrine have been published. Benzler (*D. milit. Z.* 6) saw a circumscribed red spot at the distal end of the right fovea radialis after a dose of 1 gramme for rheumatism without any general disturbance. According to Brocq spots were disseminated all over the body. These spots were red in the beginning and produced tension and a burning sensation. Later on they became painless, the redness disappeared and the color became darker. Wickham observed a roseola two days after giving 2 grammes of antipyrine, which resembled a syphilitic roseola. Herpes progenitalis was developed in a lady who used the remedy for neuralgia; then an erythea of the face followed with eight attacks. Brasch observed a vesicular eruption on his lips, gums, pharynx and penis with œdema of the conjunctivæ and difficulty in swallowing every time he would take antipyrine.—*Ther. M. 11.*

Salicylate of bismuth was given by Schmey to an eight months old infant (Bismuth. salicyl. 0.5; tinct. opii. gtts. III; div. in part. æqual No. 8.) and brought an eruption about the size of a lentil.

In a boy 21 months old treated for universal eczema with diachylon ointment, hæmorrhagic nephritis, stomatitis, etc., followed. The eczema and the other symptoms disappeared.

In doses of 0.18 santonin given to a child for worms, brought forth urticaria.—*Stewart Lanc.*, 12 Vol.

After using eight capsules of copaiba, Sequeira saw a pemphigoid eruption follow.—*British Med. Journal*, 17 XI.

Naphthol.—Two brothers were treated for scabies with a 2 per cent naphthol ointment. The one 8 times and the other 4 times with 25 grammes. Three weeks later Brach diagnosed nephritis in both boys, from which the older recovered, whereas the younger one had a complication with pneumonia and died.—*Cebl. f. inn. Med.*, 37.

Eczema.—Unna treats eczema of the fingers and hands, after cleansing them with soap, with pastes which are covered with gutta percha paper. The pastes are easily made in a cheap formula (for instance):

Zinc oxide	40
Chalk	20
Lead water	20
Linseed oil	20

In old eczemata the chrysarobin pencil is first used, then the paste and gutta percha paper. This treatment should also be continued during the day. Ung. zinci, resorcin aa 10, ter. silic, 20, are also recommended.—*Mon. f. D.*, XIX 11.

Chronic torpid eczemata of the palms of the hands and soles of the feet are treated by Wickham with emplastrum de vigo. (*Mon. f. D.*, XVIII 6.) Lassar recommends as a prevention of eczema with surgeons to abstain as much as possible from the use of carbolic acid and corrosive sublimate and a frequent change in the use of other disinfectants. The hands can be kept clean by washing with warm water, a good toilet soap and spirits of cologne. No epidermis is able to stand hard scrubbing, dipping in hot soda solutions, etc., for any length of time. Before drying the hands the following mixture should be rubbed in: Ol. oliv., glycerin, lanolin, vaselin, equal parts with 2 per cent resorcin. Existing eczemata should be treated nightly with non-heating dressing.—*Der. Z.*, L. 5.

Dougall rubs the diseased parts with acid benz. 0.6, ol. olivæ 30.0, and applies compresses dipped in the solution and covers them with water-proof material.—*Mon. f. D.*, XIX 12.

Morris advises the use of internal remedies as little as possible except in constitutional dyscrasias. Good diet, mild remedies in acute cases and strong ones in chronic cases.

For acidity of the blood, Bulkley recommends alkalies and proper hygiene.—*Mon. f. D.*, XX 10.

Seborrhoic eczema of the hairy scalp is treated by Bramm with Kummerfeld's solution. The palmar eczema of the workingman is washed with caustic potash 1:2 and then a 1 per cent nitrate of silver is applied. The same or sapo viridis in intense itching of the scrotum and later Wilkinson's ointment.—*Ther. M.*, 5.

Electrolysis was employed with good success by Sante in lupus ulcus, erodens, angioma, warts, acne, rosacea, depilation, psoriasis, etc.—*Mon. f. D.*, XVIII 10.

Epididymitis.—Paint the inguinal region with pure guaiacol, the scrotum with guaiacol vaseline, 2 to 5:30, twice a day and the pain disappears rapidly.—*Balza and Lason Arch. f. D.*, 30.

Fissure of Anus.—Ichthyol is applied with a brush to the anus once a day. The process is painless and certain according to van der Willigen.—*Mon. f. D.*, XX 10.

Incontinence of Urine.—Internal remedies not doing any good, Guyon recommends the application of electro-therapeutics.—*Mon. f. D.*, XX 10.

Vesacular Naevi.—According to Baget, electrolysis applied for 30 seconds with a power of 7 to 10 milliamperes is satisfactory. The tumor is pierced with the positive pole while the patient takes the negative one in his hand. After going over the tumor thoroughly, scarify.—*Mon. f. D.*, XIX 5.

Pityriasis Versicolor is treated by Leistikow with solution calcii bi sulfurosi 60:40 of lard.—*Mon. f. D.*, XX 9.

Tattoo Marks are removed by Nelson with electrolysis and then tattooing with papain glycerine.—*Mon. f. D.*, XIX 9.

Thioform for boils and chronic ulcers is used by Schmidt. Steurer praises its exsiccating effect in profuse suppurations and uses a 10 per cent ointment in weeping eczema.

Thyroid Extract is recommended by Byron Bramwell in psoriasis, lupus; in ichthyosis the result was a passing one. In pemphigus it was *nil* and in eczema the observations have not yet been perfected. (*Mon. f. D.*, XIX 8.) Gordon's result in a syphilitic woman who was also affected with general psoriasis, and with whom all other remedies had failed, was a good one.—*British Med. Journal*, 27 I.

Urticaria.—Observation on himself taught Lenz the good effect of ichthyol in capsules 0.2, after which the eruptions disappeared, especially those which made their appearance after meals.—*Corr. f. Schw. Ae.*, 9.

In Chanroids.—Wooster's treatment with peroxide of hydrogen was one with rapid results.—*Mon. f. D.*, XX 8.

Warts.—Sympson paints them with salicylic collodion and gives arsenic internally.—*Arch. f. D.*, 30.

Dubois-Havenith rubs the multiple warts of the face and hands with Hebra's soap spirits, and then applies either resorcin or salicylic acid plasters.—*Mon. f. D.*, XIX. 10.

In Chronic Ulcer Vaugrente combines internal and local treatment. Internally he gives after each meal a tablespoonful of kal. jod. 15.0, tincture of iodine 30 drops, aqua dist. 300.0. Locally he cauterizes with a $\frac{5}{10}$ per cent chloride of zinc solution every three or four days. In between times he applies a mercurial plaster with easy compression. The thin scar which rapidly forms is painted with picric acid solution for further consolidation.—*Centralblatt f. D. ges. therapie*, Nov., 1894.

Fournier's Intermittent Treatment for Syphilis.—Bontemps is an ardent follower of this treatment. In the first year of the treatment he gives mercury for six months and K. I. for three months with a pause of three months. For the second or third years, for from two to five months, mixed treatment. For the third and fourth years he recommends sulphur baths.—*Journal de Med. et Chir. Prat.*, 1893, page 719.

Annequin's Paste is an excellent depilatory, especially in parts of the body that are inaccessible to disinfectants or the razor, such as the perineum, the hairy scalp, etc. The already well-known paste consists of a mixture of calcar, hydrosulphur and water. After 10 minutes the hair has been removed without causing any redness of the skin or causing any pain. The hair grows again. Another formula answering the same purpose is baryum sulph. 10.0, amylum zinc oxyd. aa 5.0.

Non-volatile Substances reabsorbed through the intact skin has been observed by Melzer in a patient whom he had been treating for pruritis ani, with extract belladonna, 10.0, lanolin pur. 30.0, for a long time. Distinct symptoms of intoxication made their appearance. Melzer looks upon the large glands in the anal region as particularly favorable to such a condition.

For Chronic Ulcers Halluni recommends plumb. carbon 465.0, ol. line crud 185.0; mix thoroughly. Apply with a brush twice a day. Before applying above, wash with warm water and dry.—*American Lancet*, Sept., 1894.

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OBSTETRICS.

In charge of D. A. HODGHEAD, A. M., M. D., San Francisco.

Antiseptic and Aseptic Midwifery in Private Practice.—Francis H. Stuart says that before the days of antiseptics the mortality in lying-in hospitals was so great that the International Medical Congress held at Brussels about twenty years ago recommended that all such institutions should be closed. Now a well-conducted lying-in hospital is a safer place to be confined in than the average home. While the mortality has been greatly reduced in these institutions by antisepsis, the reports from private cases show about the same ratio of deaths as twenty years ago. Two questions naturally arise: First, is it more difficult to secure aseptic conditions in private homes? Second, does the average practitioner make sufficient endeavors to secure such aseptic conditions? What should the obstetrician do to secure the best surroundings for his private patients? In brief, as careful preparation of the room should be made as for severe surgical operations, while all the accessories of the accouchement—the sheets, blankets, pillowcases, pads, napkins, etc.,—must be kept aseptic and clean. Where skilled nurses are employed, these details are comparatively easy to manage; but even in the poorest homes a comparatively aseptic condition of affairs may be secured by the careful directions of the physician. It is perhaps unnecessary to say that both nurse and physician should be strictly aseptic as to dress and person. The patient should take frequent and thorough baths, and at the onset of labor should be instructed to especially scrub the genitals, abdomen, and thighs. Rectal enema, sufficient to thoroughly empty the lower bowel, should be given. Then a vaginal douche of Tavel's solution to which is added one per cent of pheno-salyl, should be given. After this the vulva and adjacent parts should be sponged with a 1 to 2,000 solution of bichloride of mercury, and then with alcohol. Perfectly clean clothing should be placed on the patient and bed. Vulva pads should be made from absorbent cotton and boiled cheese cloth. An abundant supply of boiled water in bottles, as well as boiling water, should be insisted upon, as well as douche bag and pan, green soap, three papier-maché basins, bichloride-of-mercury tablets, pure carbolic acid or pheno-salyl, carbolized vaseline, sterilized nail-brush, alcohol, and powders for Tavel's solution; also clean rubber sheets for the bed. All instruments should be sterilized in case they are needed. As few vaginal examinations as possible should be made. After delivery no douches are needed, unless there has been a dead fœtus or other contaminating condition. During the puerperium, in normal cases, absolute external cleanliness is all that is necessary. Vulva pads should be frequently changed. Rise of temperature when the uterus does not contract firmly may be controlled by twenty minims of fluid extract of ergot, and five minims of tincture of nux vomica three times a day. If the lochia becomes offensive, a douche of simple boiled water, temperature 105° F., is sufficient.—*The American Gynæcological and Obstetrical Journal.*

Delayed Puerperal Infection.—Doléris points to the established fact that the bacilli of infection may be temporarily innocuous until some incident again arouses their former virulence. Thus it comes that an infection which has been latent for weeks or months suddenly lights up with surprising intensity. He refers to cases of mild puerperal infection which during the puerperium gave either very slight or no symptoms at all. Weeks later, owing to some influence unknown, the latent bacteria are again aroused to activity and produce serious symptoms of puerperal infection. Infection may also occur some time after labor or puerperium, which may still have a puerperal character, because the sexual organs have not regained their former condition and still possess a special morbid receptivity. The treatment of delayed puerperal infection is in accord with antiseptic principles.

Symphyseotomy.—Symphyseotomy was performed by Kenneth Cameron in a case with a conjugate of three and one fourth inches and a living child of eleven and one-half pounds delivered by forceps. There were lacerations of both anterior and posterior walls of the vagina, which were sutured with silkworm gut. The pubic wound was brought together by six silkworm-gut sutures and covered with iodoform gauze dressing, and straps of adhesive plaster were applied tightly around the pelvis; these were augmented two days later by a broad belt of webbing tightly strapped. The patient made an uneventful recovery. The sutures were removed on the tenth day and all the wounds were found to have healed by primary union. She was allowed to get out of bed on the twenty-first day and to walk at the end of the fourth week. The symphysis seems now to be completely united, as no movements whatever can be felt. She walks well and is able to perform her household duties as well as ever.

Hysterectomy for Cancer in the Seventh Month of Pregnancy.—Fehling records the case of a VI para, aet. 32. Had irregular bleedings since the fourth month of pregnancy; they increased gradually in severity. In the seventh month of gestation it was found that the posterior lip of the cervix was the seat of a cancerous growth which extended to the anterior lip and the fornix vaginæ. Parametrii not infiltrated. The author discusses the various ways in which such a case could be treated, but states that the Porro operation, with subsequent removal of the stump per vaginam, is most advisable. After removal of the uterus the stump was surrounded by an elastic ligature and removed by the vagina. The woman recovered. The uterus contained a fetus of about the seventh lunar month and a fetus papyraceus.

The Results of Version After Symphyseotomy.—Spaeth reports a case of symphyseotomy in which he succeeded in delivering a living child by version and extraction after having failed with the axis-traction forceps. He has collected all cases of symphyseotomy since the year 1887, and finds that symphyseotomy in combination with version presents a mortality of 9.5 per cent to mother and child, while with the forceps the mortality is 11 and 21 per cent respectively. His literary search failed to substantiate the claim of Schauta that version after symphyseotomy is likely to cause a laceration of sacro-iliac synchondrosis. As version is the best method of delivery in minor degrees of pelvic contraction, it is rational to suppose that it also gives superior results after symphyseotomy.

A Contribution to the Pathological Anatomy of Puerperal Eclampsia.—The various organs of two cases of eclampsia were subjected by Leusden to a minute microscopical investigation. He gives his results as follows: I have found nothing which indicates the infectious (bacterial) origin of puerperal eclampsia. The probability is that a toxic substance circulating in the blood is the cause of eclamptic attacks. The changes in the kidneys are the principal organic lesions. The placental giant cells which are found in the lungs are neither a cause nor a result of eclampsia. The embolism of these cells is only an accidental coincidence. Even the most careful searching failed to show emboli containing liver cells. The minute necrotic changes in the parenchyma of the liver, present in both cases, could not be connected with the cause of eclampsia. The hyaline (fibrous) thrombi of the lung and liver capillaries are the result of secondary changes (uremic ?) which occur independent of eclampsia.

Critical Remarks About Vagino-fixation and Colpoceliotomy in Their Relation to Pregnancy and Labor.—A. Mackenrodt states: The suturing of the fundus uteri to the vagina, after the peritoneum has been opened, leads to the formation of firm adhesions which hold the uterus in a position of pathological anteflexion. Under such conditions normal pregnancy and labor are only possible if these adhesions are broken either spontaneously or forcibly. If they remain intact the pregnancy is interrupted or labor is likely to be complicated. These same disturbances result if the uterus is fixed with silkworm gut. The author cites a case of labor following ventrofixation. The uterus was in a position of decided anteflexion, the cervix high and directed posteriorly; in spite of strong pains no dilation. Only after the adhesions were ruptured and a version was performed could progress be noted. In a second case the uterus was sutured to the vagina with silkworm gut; marked disturbances occurred in the third month of gestation, which disappeared immediately upon the removal of the retaining sutures. The uterus which is lifted from the peritoneal cavity and fixed to the vagina is apt to relapse to its old position. This forcible withdrawal of the uterus from its anatomical position may also cause severe hemorrhage from the tearing of the ovarian arteries or their branches. A kinking of the Fallopian tubes with subsequent sterility has also been observed. These complications may be avoided by fixing the uterus in an improved position by a complete obliteration of the excavatio-vesico-uterina. To do this the bladder must be separated from the peritoneum well above the plica. Next the antero-uterine pouch is obliterated by continuous catgut sutures. This method of operation fixes the uterus by peritoneal adhesions, which stretch if pregnancy ensues, to again contract during the puerperium.—*The American Journal of Obstetrics.*

In Memory of Pasteur.—In honor of M. Pasteur, the Paris Municipal Council have decided to give his name to the Boulevard de Vaugirard, which adjoins the Pasteur Institute.

OPHTHALMOLOGY AND OTOLOGY

Under charge of W. F. SOUTHARD, A. M., M. D.

In the Section of Laryngology and Otology which met at Baltimore, May 7th, 10th, 1895, many excellent papers were read which, with the discussions thereon, are published in full in the transactions. One of the questions which is of some general interest is that treating on removal of membrana tympani and ossicles for relief of chronic catarrhal deafness.

Dr. Turnball gives four cases of chronic catarrhal deafness (three of his and one of Dr. Macuen Smith's) complicated with vertigo and tinnitus, which had greatly improved after the membrane and ossicle had been removed. It is true none were cured of deafness, but great relief had followed, which should be considered in as favorable a light as when in eye cases, by treatment or operative means, we give but a fraction of normal vision. Such patients almost always accept this improvement with cheerfulness and even gratitude. The author thinks that ear patients are the most ungrateful of mortals, for they are not satisfied unless they are promised a cure.

Another subject of interest is that of pneumo- and phono-massage. Dr. Lautenbach, of Philadelphia, read a paper on its curative effects. He claims great benefit for this treatment in middle and internal ear diseases. The discussion on this paper soon showed that there was quite a difference of opinion as to its merits. Dr. Rogers, of Providence, R. I., stated that "he had used this method for several years, making as critical a study of each case as he was able, and he had not seen improvement in over 1 or 2 per cent, while in a larger percentage there was actual impairment. The theory of aural massage is fascinating, but we should not forget that in carrying it to a greater degree we are advising as a therapeutic measure a procedure which causes boiler-maker's deafness."

Dr. Nichols, of New York, stated that "his experience with aural massage had been disappointing. Many were apparently improved temporarily, but later the tinnitus returned and hearing was unimproved. In regard to removal of ossicles he thought that the sum and substance of the discussions seemed to be that the impairment in hearing was not permanent, but when healing took place the hearing was as bad or worse than formerly."

Dr. Alderton, of Brooklyn, did not believe in "ossicilotomy in chronic catarrhal otitis media, but recommended it very highly in cases of chronic suppuration of the middle ear, where it was shown that the internal ear was in normal condition."

Dr. Wurdemann, of Milwaukee, is favorably disposed towards the views of Dr. Turnball. He says that "fully one half the cases that apply within a year after the beginning of tinnitus are practically cured by a course of treatment." He calls attention to the necessity of looking at the throat and nose in all cases of ear trouble. As to aural massage he states "that his experience had been limited, and on account of the disagreeable effects of the sounds of the vibro-meter in some cases patients had absolutely refused to go on with the treatment after one sitting."

Dr. S. MacCuer Smith, Philadelphia, sums up his views by saying that "he believes the operative measure under consideration capable of giving good results when proper cases are selected for its application." The aural massage he believes to be "limited in its usefulness." From the discussion it would seem on the whole there was a fair degree of faith in the removal of membrane, tympani and ossicles, for certain diseases; and but little faith in aural massage.

Seats for Employees.

The New Hampshire Legislature has enacted a law compelling every person, firm or corporation employing females in any manufacturing, mechanical or mercantile establishment in the State to provide suitable seats for the use of females so employed, and shall permit the use of such seats by them when they are not necessarily engaged in the active duties for which they are employed. A fine of not less than $10.00 or more than $30.00 for each offence is the penalty prescribed for a violation of the law.—*Boston Med. and Surg. Journal.*

Organic Extracts.

Dr. Frederick Coggshall in a paper read before the Clinical Section of the Suffolk District Medical Society, October 16, 1895, entitled, "A Clinical Test of Some of the So-called Organic Extracts," cerebrine, ovarine, cardeine and testine, concludes that these so-called organic extracts are physiologically and therapeutically worthless.—*Boston Med. and Surg. Journal.*

TRANSLATIONS FROM THE FRENCH.

By W. L. ADAMS, M. D., Palo Alto.

Poisonous Effects of Bismuth in External Wounds.—M. Gaucher presented at a recent meeting of the Medical Society of the Hospitals an interesting communication on the occasional poisonous effects of bismuth subnitrate used externally in the dressing of wounds, illustrated by four cases in his own practice, one of which was fatal. These effects occur not only when the drug is mixed with other substances (arsenic, antimony) as it sometimes is, but also when it is perfectly pure as shown by rigorous analysis. The beginning of the intoxication is insidious, consisting in slight disorder of the digestion, coated tongue, exaggerated salivation, abnormal sensibility of the mouth. Then appears a border on the edge of the gums very similar to that found in lead-poisoning, but of a deeper violet tinge. The internal surface of the lips and cheeks present also areas of persistent pigmentation. In severe cases ulcerations occur at the site of these pigmented spots, also at the "blue line;" an acute generalized stomatitis follows, and then secondary infections characterized by vomiting, diarrhœa, albuminuria and other grave constitutional symptoms.

It is strange that toxic effects have never been seen in the use of this drug excepting when it has been applied to an external wound. Internally it has been given in massive doses, for years past, in the treatment of diarrhœas due to intestinal ulceration, as well as in the treatment of gastric ulcer and cancer, without evil result. It has been suggested that probably this is due to the precipitation in insoluble form of the bismuth by the alkaline juices of the intestine—even that part that may have been dissolved in the acid gastric juice being precipitated. While in the dressings of external wounds the bismuth forms with the albuminoid substances present a soluble combination which is absorbed by the organism.

Refuges for Pregnant Women.—At the meeting of the Academy of Medicine, Nov. 26th, 1895, M. Pinard called attention to the difference in weight, at birth, between infants whose mothers had kept at work up to the moment of their accouchement, and those whose mothers had rested and been cared for at one of the Refuges for Pregnant Women. In a comparison of the weights of 1,000 infants, 500 belonging to the first category and 500 to the second, it was found that the average excess in weight of the latter over those of the former class was 356 grammes per infant.

A considerable difference was also noted in the average duration of pregnancy in the two classes of mothers. For example: out of 1,000 women that worked up to the moment of their accouchement, in 482 the duration of pregnancy was over 280 days; in 279 it was from 270 to 280 days; and in 239 cases it was less than 270 days. While out of 1,000 women that had rested 10 days or more at a Refuge before confinement, in 660 cases pregnancy lasted over 280 days; in 214 it was from 270 to 280 days, and in 126 it was less than 270 days. As Professor Pinard says, it is unnecessary to insist upon the eloquence of these figures, for it is by no means a matter of indifference to be born prematurely.—*Gazette des Hopitaux.*

Medical Students in Paris.—It is not only our own country that suffers from what might be termed a plethora of professional men. The Faculty of Medicine at Paris, alarmed at the overcrowding of the clinics and the courses of practical instruction in surgery, anatomy, pathology, etc., has adopted new regulations, both as regards students of native birth, and particularly foreigners. The standard for native students has been raised, the baccalaureate in letters alone being no longer sufficient in order to matriculate in the medical school, an extra year in scientific work being required in future. In the case of foreigners two baccalaureates are required—the A. B. and the B. S., and as far as possible students from other lands will be directed to the provincial schools, at least for the first two or three years of their medical studies. These regulations only apply to those that matriculate as candidates for a degree. Paris will undoubtedly prove as hospitable to those that go there for special work only, as it has heretofore been. But even if all foreign students should find the *entrée* to medical work in that beautiful capital more difficult than it formerly was, yet we cannot blame the Faculty for its move, which is really one in the right direction. Moreover, "charity begins at home," and if the French medical student has been prevented from enjoying the full advantages of the opportunities for medical instruction offered at Paris, through the influx of strangers, the Faculty is but doing its duty to restrict such an abuse. The number of medical students in France has nearly doubled since 1885. And now, out of over 5,000 students nearly one quarter are foreigners. As the degree given them confers the same privileges upon them as upon native-born physicians it seems but just that the foreign-born should be placed on the same footing as regards preparation and time required for the degree.

Decreased Death Rate From Diphtheria.—At the meeting of the Academy of Medicine, Dec. 17, 1895, M. Henri Monod communicated statistics showing the steady diminution of the death rate from diphtheria since the introduction of the anti-diphtheritic serum. These are the figures: In the population of 108 cities of France containing more than 20,000 inhabitants, and during the first six months of each year from 1888 to 1894, the average number of deaths from diphtheria was 2,627. During the first six months of 1895 the number of deaths was 904—a decrease of 65.6 per cent. This diminution is not only continued, but as shown by monthly records, is still increasing. Dr. Monod says that as diphtheria afflicts the small towns, villages, and country districts (whose statistics in these matters, not being regularly received at the central office, are not as reliable) equally with the large towns, it would not be rash to say that 15,000 human lives are annually saved to France by the employment of the anti-diphtheritic serum.—*Gazette des Hopitaux.*

INTELLECTUAL DETACHMENT.—In the *Nineteenth Century* for July, Sir Herbert Maxwell relates the following: "The outspoken ways and caustic sayings of Dr. Jephson, of Leamington, celebrated in the forties and fifties, have furnished the kernel of many anecdotes. One day he was called on by one whom Brantome would have called *une grande dame de par le monde*, the Marchioness of ———. Having listened to a description of her malady, the oracle pronounced judgment: 'An egg and a cup of tea for breakfast, then walk for two hours; a slice of cold beef and half a glass of Madeira for luncheon, then walk again for two hours; fish (except salmon) and a cutlet or wing of fowl for dinner, with a single glass of Madeira or claret; to bed at ten and rise at six, etc. No carriage exercise, please.' 'But, doctor,' she exclaimed at last, thinking he was mistaken in his visitor, 'pray do you know who I am? Do you know—ahem!—my position?' 'Perfectly, madame,' was the rely. 'I am prescribing for an old woman with a deranged stomach.' From this it is clear that it behooved this exalted lady to cultivate detachment as the preliminary to a return to health; to regulate her life without any reference to her rank in the peerage, her station in society, or the number of carriage horses in her stable."

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Editorial.

X-RAYS OR ROENTGEN RAYS.

One of the most remarkable discoveries of modern times is that the X-rays, which are invisible to the eye, have been demonstrated by Professor Roentgen of Würzburg, to possess certain qualities which are unquestionably destined to be of incalculable value to the scientific world, especially in medicine and surgery. Just what the possibilities are, the future alone can tell. Like all other great discoveries in science a great deal of experimental work must be done before their real practical value can be stated with anything like scientific accuracy. Also, like many another discovery in the world of science, there is a liability that we may become over sanguine and over enthusiastic and expect far more than is warranted by subsequent experience.

The fact that there are invisible rays, has been accepted by physicists for several years. Two years ago Lenard obtained shadow images by this same method. Professor Sanford, of Stanford University, at about the same time also obtained shadow pictures of coin. Laboratory experiments have clearly pointed to their existence. It remained, however, for Prof. Roentgen to prove their presence by irrefutable evidence. He has furthermore demonstrated that these rays easily pass through substances heretofore denominated as opaque; also that objects invisible to the eye may through the action of these rays be made visible upon a sensitized plate. For example the bones of the hands, coin in purses and many other objects which are comparatively impervious to these rays, have been successfully imaged in shadow by several experimenters, thus demonstrat-

ing the chemical action of the rays upon the sensitive plate. Upon these few experiments are based the most exalted claims as to the possibilities of these rays.

Mr. A. A. C. Swinerton, of London, has made experiments independently in his laboratory, and, according to the *London Lancet* and *British Medical Journal,* has shown that sheets of ebonite, carbon, vulcanized fiber, copper, aluminum and iron are transparent to these rays. It has also been determined that the power which these X-rays possess to penetrating substances does not depend so much on the *nature* of the substance as upon its *density.* To determine density of substances would, therefore, appear to offer a wide field for experimental work.

Roentgen makes a distinction between cathode rays and X-rays. The first are capable of deflection to the right or left of a straight line by a magnet. The X-rays cannot be refracted or deflected by the magnet, glass or any other known substance. For this reason the images of objects must be mere shadows like silhouettes and of the same size as the objects. If any substance could be discovered which would lessen their velocity to an unequal degree then a focus could be obtained and a sharp picture result ; this substance will probably be either a gas or liquid, rather than a solid.

It would seem that the X-rays rather than the cathodal rays produce the results so far obtained. The cathodal rays produce under excitement a fluorescence in the Crooke's tubes, and since we have in these tubes an almost complete vacuum we may assume that they are visible; the X-rays on the contrary, are, so far as determined, invisible. These X-rays, whether magnetic or allied to gravitation, or whatever may be their nature, must have some undetermined value in ordinary photograph work, for they must be a constituent of the sun's rays, just as are the invisible actinic rays.

These X-rays may only differ from light or visible rays in their rate of speed. Does it seem impossible to conceive that they may be propelled with a velocity so great that the perceptive elements of the eye are insensitive to their action; yet by reason of their inconceivable velocity may it not be that this is also the cause for their ability to penetrate material substances? If so it is entirely within the range of possible supposition that the future will disclose a means to render them visible. The various colors of the spectrum heat rays, and the invisible actinic or photographic rays are from the same source but differ from each other in speed and refrangibility. Tyndall demonstrated the presence of invisible colors present at the violet end of the spectrum, of short wave lengths and very refractive. It therefore seems to me that there can be no violence in placing these X-rays in the same category with radiant matter, differing in rapidity of motion and having no apparent refrangibility.

Dr. G. D. Frost, of Hanover, N. H., Professor Wright, of the Sloan Laboratory at Yale College, Professor Trowbridge, of Harvard, Professor Sanford, of Stanford University, and other eminent men have been and are working on this subject, and sooner or later they will give us results based wholly on scientific principles and free from sensationalism. Mr. Edison at his laboratory has taken up the work of investigating these rays and their possibilities. He is endeavoring to photograph the human brain. As it is stated that bone is opaque to these rays he must be experimenting upon different lines from those which are being generally followed. Crooke's vacuum tubes are usually employed, but Mr. Edison proposes to use a celluloid vacuum instead of glass, and believes that he can thereby cause these rays to enter any substance. He says (*Boston Med. & Surg. Journal*) that it is very important to know the effects of the X-rays on metal, so that we can enclose various fluids and other matters in cells of the substances easily penetrated. As yet we have not attempted to photograph any fluids, and there may be some wonderful surprises in store for us when we turn these rays on liquids.

Nikola Tesla is conducting experiments with these X-rays, working on his own lines with tubes of his own construction. He has, however, given no information of his work and will not until he has completed his experiments.

One of the very first and so far the most successful of our American experimenters is Professor A. W. Wright, of Yale University. In the *Scientific American* of February 15th, is a most excellent account of his work, also several engravings, from sketches made in his laboratory, of objects imaged by these rays. They were, a purse with coins in it, a box containing aluminum and wire weights, a pasteboard pill box in which some balls of different metals were placed embedded in cotton, medals and coins and a lead pencil. These articles were placed upon the ebonite slide of a plate-holder which contained a sensitized plate. A few inches above the objects was suspended a Crooke's tube spherical in shape—these are simply tubes or vessels of thin glass into whose walls platinum wire electrodes are sealed hermetically and which are then exhausted to a very high degree, to about one millionth of an atmosphere—the tube was then excited for some minutes, by excitation furnished by an induction coil, the primary of which was excited by a fine-cell storage battery and the secondary was taken as giving 200,000 to 300,000 volts potential, corresponding to a spark length between two electrodes of about two to three inches in air. Wires from the secondary were connected to the terminals of the Crooke's tube, the negative wire to the upper electrode. Bone, metals and graphite in the pencil are indicated by very dark shadows. All the effects were produced through the ebonite cover of the plate-holder. He has also by experiments upon a rabbit, discovered that the fur as well as the flesh is transparent to these rays. He exhibited a shadowy skeleton of a rabbit obtained by exposure to excitation from Crooke's tubes.

Professor Wright has also discovered "a curious peculiarity of the plates which have been subject to the cathode rays, as compared with those which have been acted upon by light, in their great sluggishness in development. The image does not appear at all for a relatively long time, and then comes up very slowly, so that the development must be continued a very long time to bring out all there is in the picture."

Professor W. F. Magie, Ph. D., Princeton College, gives a description (*Medical News*) of an instrument which he "proposed for examination with the Roentgen rays I have not seen described elsewhere, and therefore present a brief account of it in the hope that it will be of use to investigators in this interesting subject. A sheet of black paper, coated on one face with platinum-bari cyanide, is placed with the coated side inward across the end of a tube or box, into which the observer looks, and which is so fitted to the face or shielded by cloths that the phosphorescent substance and the eyes are protected from all extraneous light. If this tube be then directed toward the excited Crooke's tube, which is giving the Roentgen rays, the phosphorescent paper in the tube glows, and the shadows of objects interposed between it and the Crooke's tube appear upon it. The advantage of this arrangement consists in its avoiding the experimental inconvenience of working in a dark room, and likewise the delays involved in the plan used by Roentgen. By this instrument the phenomena of the Roentgen rays can be most conveniently investigated. Its obvious applicability in diagnosis has led to my giving an account of it here. A more detailed account, with a report of cases in which it has been used, will appear in the March number of the *American Med. Journal.*"

From *The Boston Med. & Surg. Journal* of February 13, 1896, we learn that: "The history of the discovery and its nature are essentially as follows: For many years it has been recognized, and was taught by the late Professor Tyndall, that the invisible rays of heat, stopped by metals, can penetrate through rock-salt, and that the equally invisible actinic (photographic) waves, while penetrating quartz are largely stopped by glass. Abney later succeeded in photographing in a dark room, a kettle of boiling water by the invisible radiations of its heat waves. It was also found that a screen of ebonite is transparent to heat waves. About seven years ago, the researches of Hetz and Lodge demonstrated that electric waves, which, are arrested by metals, may pass through walls or wood or through the human body. Crooke, in the meantime, had been studying the effect of electrical discharges in high vacua. He found that in the attentuated gaseous residues in the tubes which he used, the discharges from the negative pole cast shadows on the walls of the enclosing tube—the so-called cathode rays. As a conclusion to this series of scientific experiments, comes Roentgen's important discovery of still other rays, which in our present comparative ignorance regarding them, he calls X-rays. In other words, they are probably ether rays, but not transverse waves, such as exist in visible light, or invisible ultra-red or ultra violet light. Roentgen supposes the rays to be longitudinal ether waves, long suspected by physicists, but not yet demonstrated." It is thus seen that cathodal rays have been known to scientists for many years. It is the X- or unknown rays, their action upon the sensitized pole and their inability to penetrate bone, upon which Roentgen's fame as a discoverer must rest.

Instead of the ordinary aparatus used to excite the action of these X-rays, may it not be possible by a more simple and direct method to use the static current?

If but a small part of what is hoped for, from the X-rays, is ever realized, we shall have received a gift of surprising and incalculable value which will far transcend that of the telephone; for, while the latter is acknowledged to be an almost invaluable aid to man in carrying on the world's work, the former possesses possibilities in aiding in preservation of health and life which far outweigh any possible value which could be placed upon the telephone.

We may have to wait several years before these rays can be applied to practical purposes, except to a very limited degree. Should some means be discovered to bend these rays to a focus, no one can foretell what wonderful results may follow, for this is the determined factor which shall make of this discovery a marvelous possibility only, or a marvelous success. Between these two positions there is a far greater and more difficult gulf to span than ever existed between the first crude daguerreotype picture and the latest finished production of photographic art. The use of the word photograph in connection with the subject of the X-rays is a misnomer and should not be employed. The results obtained with these rays are simply shadows of the objects which lie in the pathway of these rays, are of the same size and are wanting in detail.

Arthur W. Goodspeed, Ph. D., Philadelphia, proposes (*Medical News*) to adopt the word "radiography" to the process of producing impressions. Henry W. Cattell, A. M., M. D., Philadelphia, in same journal, proposes the terms skotograph or skiagraph to show their relationship to and their distinction from photographs.

Prof. Salvioni, of Perugia, is reported to have claimed that he had an optical instrument which, when used under the influence of these X-rays, rendered visible the contents of a closed aluminum box. This, if true, gives a value to these rays beyond all calculation. Let us not be carried away by exaggerated statements which are daily served to the public who, with gaping mouths, are ever ready to swallow the most absurd and ridiculous tales. In the meanwhile the conservative person will wait for authentic information from men trained in laboratory work. We are for some time to be literally flooded with highly sensational articles from a class of alleged scientists, whose only claim to recognition lies in their ability to cater to the public demands for the marvelous and mysterious.

Whatever of value this discovery may be in the arts and sciences, whatever good is finally to result to the cause of medicine, we may be sure that it is not from pseudo scientists that we are to receive our final results. "This discovery," says the editor of the *Boston Med. and Surg. Journal*, "is but another evidence of what medicine, as an inexact science, owes to the work of the theorists, an obligation which the practical physician is too likely to forget or ignore."

CAN AN ANIMAL FROZEN TO AN ICE CLUMP BE RESTORED?

A writer in a late number of the *American Medical and Surgical Reporter* discusses this interesting question and gives certain facts which tend to prove that animal life is compatible with very low temperature. From experiments in animal and plant life by Koch and other experimenters the following conclusions have been reached:

If the animal is slowly frozen and as slowly thawed out life may be restored. If the freezing takes place at -5° C., then remain at a temperature of -2° C., there cannot be an aggravation of the condition. The temperature must be gradually raised, otherwise a fatal result will follow. The old plan, so prevalent in cold regions, of thawing out a frozen member of the body by rubbing with snow, before coming into a warm room, is based on scientific principles. Death follows at once if *all* the water contained in the body be crystalized. Complete congelation of the water of the body tissues signifies complete drying, separation of all the soluble and loosely chemically united gases, as well as crystalization of the salts. As a result of this, the structure of the protoplasm, as well as its chemical and physical characters, is necessarily destroyed. Death follows as the result of this separation of the living substance, and not as a consequence of great reduction of temperature. Water containing leeches can be lowered to -4.5° C. without the formation of ice within the tissues of these animals. Only when crystalization of the water surrounding the animals occurs, and extends into their richly watery tissues, do they die.

Animals whose tissues are rich in water may be frozen to stony hardness, but as shown by macroscopic and microscopic examination a sluggish movable fluid may be seen coursing among the ice needles. Too long a time must not follow freezing before the efforts to restore life commence.

For the preservation of life slow freezing is apparently less dangerous than sudden thawing; and it is proper for gardeners to protect plants more against the rays of the winter sun than against the cold air of night. While the possibility of restoration of an animal frozen to an ice clump is unquestionable, this can take place only in the rarest cases of slight duration and in the presence of the most favorable circumstances.

LIFE INSURANCE.

The old line life insurance companies have reduced, or are about to reduce, the medical examiner's fee for examination. In the January, 1896, number of this journal we expressed the hope that the matter would be brought before the medical societies of the country, and that they would make an effective protest against the outrage. We are glad to see that the medical societies are taking an interest in the matter and passing resolutions prohibiting members examining for a company that reduces the examiner's fee to less than it is at present, $5.00. When the companies find that they will have to go outside of the medical societies for examiners they will also find that they began at the wrong end to economize. We could suggest several reforms in the management of several of the large companies that would be in the line of legitimate economy.

There are many things in connection with life insurance that medical men would do well to keep in mind, they might use their knowledge and influence in the interest of their own State. It is well known that the companies foreign to this State take East over $4,000,000 in premiums per year; that they have taken in all since they commenced doing business here about $150,000,000. Medical men can do much to stop this by advising their patients to patronize home companies, and if the companies are not so large as some of the Eastern ones, they would soon become so if they were given the business. For instance, for 1895, the Mutual Life wrote new policies to the amount of $4,967,261.00; the New York Life, $3,696,670.00; the Equitable, $2,054,398; while the Pacific Mutual, a home company, that lends and invests its money in the State, did $1,060,500.00. It is well to remember that of this enormous amount of money taken East only about 4 per cent is returned in death losses. If the physician will help to stop this drain on our State, money will be more plentiful and his bills will be more easily collected.

A PIONEER IN DERMATOLOGY.

Dr. Wigginsworth of Boston, who lately died, was one of the pioneers in the development of modern dermatology. It was the privilege of the writer to have known him quite intimately in the early seventies. He was a most conscientious and painstaking man in his professional work. Those who knew him personally can testify to the pleasure it gave him to assist students who came with a real desire to learn. He hated all pretentiousness and quackery. To examine into and get at the bottom facts in unusual cases of skin disease was for him a rare treat. He lived long enough to have witnessed great progress in his chosen specialty. That our schools are now graduating a larger number of trained medical men and earnest workers in all branches of medicine is due to the efforts of men like Dr. Wigginsworth and his companions. To rid our community of charlatans a higher standard of medical education must be the aim of all our medical schools. In this way only can the people differentiate between the real physician and the pretender.

THE SAN FRANCISCO POLYCLINIC.

The San Francisco Polyclinic, the Post-graduate Department of the University, seems to be losing its prominent members. Dr. J. F. Morse, Dr. W. S. Thorne, Dr. E. S. Clark, Dr. Harry Sherman and Dr. W. F. McNutt have all recently resigned. These gentlemen are extremely reticent as to the cause for their resignation. After a good deal of enquiring among their friends all that we have been able to learn is that the Polyclinic having utterly failed as a post-graduate department, they had no interest in it as a dispensary.

THE HESPERIAN.

This is a quarterly magazine, edited and published by Alex. N. De Menil at 7th and Pine street, St. Louis, Mo., price 50 cents a year. We wish every one of our readers would send fifty cents to DeMenil and procure *The Hesperian* for one year. Every subscriber will continue to send on his fifty cents as long as *The Hesperian* continues to be what it is at present, viz.: an antidote to much of the trash that is printed and circulated as literature. No person knows better than does the physician the demoralizing effect of degenerate literature upon the young men and women of our day and generation. Good, sound, literature is as necessary to make a thoroughly good, steady, thinking apparatus as good food and exercise is to the building of a robust physique.

Notice to Librarians, and to Physicians Having Unused Medical Periodicals.

Dr. Geo. M. Gould, 925 Walnut Street, Philadelphia, requests librarians of medical societies, colleges, and associations to send him lists (with precise dates, etc.) of such periodicals as they need to complete their files.

He also begs physicians (or legatees) to send him accurate lists of such periodicals (or books) as they are willing to donate to libraries. Lists only are desired, not the periodicals themselves, until after correspondence, it shall have been determined: 1. Where they are needed. 2. Where they will be properly cared for. 3. Where they will do the most good to medicine.

It is Dr. Gould's intention to aid established libraries in completing their files by thus forming a kind of (gratis) exchange, and to encourage the formation of new public medical libraries by utilizing some of the vast number of valuable medical publications at present going to waste or destruction.

Hydrochloric Acid in Tonsilitis.

Dr. Kendal in the *Journal* speaks highly of the use of this acid in tonsilitis. He uses capillary tubes $\frac{1}{8}$ inch in caliber and drawn to a point. These are dipped into fuming hydrochloric acid, then pushed well into the ducts of the tonsils; a drop is there deposited. This is done twice a week.

A Doctor's Ulster.

Some of our brethren may be interested in an ulster containing pockets so arranged that one may carry his medicine case, hyperdermic case, stethescope, obstetric forceps and some other necessary instruments without bulging of the coat when worn. The *Daily Lancet* of Philadelphia gives a cut of this coat taken from the *N. Y. World*.

Proceedings of Societies.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

The regular meeting of the San Francisco County Medical Society was held January 14th, 1896. The minutes of the previous meeting were read, and on motion adopted with the following correction by Dr. Kuhlman. In the discussion on Dr. Abrams' case, Dr. Kuhlman said: "Kitosato, Peter F. Holst, O. Malm and Duclaux, have found that they were unable to identify, separate or cultivate the bacteria of tuberculosis from the tubercular sputum." The President requested that the Secretary so correct the minutes, and they were then adopted.

Drs. I. M. Houston and C. F. Pawlicki were elected members of the Society.

Dr. Davis, chairman of the committee appointed to draft a memorial on the death of Dr. Basil Noris, read the resolutions.

The President: You have heard this memoir read, which the By-Laws provide shall be spread upon the minutes and a copy sent to the family of the deceased. Copies will also be sent to the medical journals of California.

Dr. Kenyon: I have heard this excellent memoir and am sorry that I have not the ability to pay a tribute to his memory. I knew Dr. Norris very well, better probably than many of us here. He was a good man, one of nature's noblemen, and all his deeds were characteristic of his greatness and goodness.

The President: Regarding the papers that were to be presented to-night by Dr. DeMarville and Dr. McNutt, I am sorry to state that both gentlemen are absent. Dr. DeMarville has made his excuses in due time, but from Dr. McNutt we have not heard directly or indirectly, and in the absence of these gentlemen Dr. Kenyon has kindly agreed to present a specimen and report a case.

Dr. Kenyon: I did not expect to present a paper or case—only just to fill a want, as it were, and will just give a brief report of a case and specimen. The first little specimen is a small floating body found in a case of hydrocele; it is out of the ordinary, I think, and is somewhat similar to the floating cartilages found in the joints. The patient was under my care for a fistulo in ano and when under an anæsthetic for the operation, I opened the hydrocele by a long incision as is my wont. I have not found anything in literature regarding such bodies. The second specimen is a cancerous uterus removed by vaginal hysterectomy. The following is a brief history: Five or six months ago the patient came under my care suffering from repeated hemorrhages. She was nearly exsanguinated from the weeks of hemorrhages. I advised and did curetting, which gave her relief for three months, when a return of hemorrhage took place; curetted again, and in about three months more hemorrhage set in. I suspected malignant disease, though the cervix looked perfectly healthy, but when I operated the uterus was found to be extensively involved. The interesting features were these: The *rapid convalescence* and the *comparative freedom* of the disease in the vaginal portion of the cervix. The patient was sitting up on the 8th day and on the 15th day made her own bed; it was impossible to keep her in bed. The ligatures are not all away yet. It is the 17th day to-day. I have never seen so little after-effect from so serious a case before.

Dr. Carpenter: Was there any examination made to ascertain the character of either the cartilage or uterine growth?

Dr. Kenyon: Not of the cartilage—the uterus was malignant.

Dr. Wanzer: These cases are both of interest. The rapid convalescence in the hysterectomy case is indeed remarkable; have never seen such a quick recovery.

Dr. Davis: The foreign body is interesting. I presume the doctor has not any theory or opinion as to why it was there, whether it had caused the hydrocele or aggravated the disease in any manner. As to the other case, it *was* rapid, and I should think that the doctor would feel gratified at the result.

Dr. Kenyon: Now, it would be interesting to know whether this foreign body was the cause or result of the disease.

USE OF CYSTOSCOPE.

Dr. Krotoszyner reported the following case: Six or eight weeks ago I was called in consultation by Dr. Herrington to see a patient who had been under his care for a day. It seems that while in a jolly mood the husband of the patient had taken a small steel pin with a black china head, and endeavored to find out where the urine came from! The needle was pushed into the urethra and slipping from his grasp disappeared. They became alarmed and sent for Dr. Herrington who treated for a day on the expectant plan. She had passed a few drops of blood, and complained of some pain in her back, not acute, and I think due mostly to her mental excitement. I saw her first at 8 P. M. and immediately resorted to cystoscopy. This showed the foreign body in the anterior wall of the bladder. The point was stuck near the right ureter and the head was floating about half an inch from the anterior wall and near the middle line. The area of mucous membrane around the point was discolorized, appearing black near the point and vascular farther away. I meditated a moment how to act, having made the cystoscopic examination I knew the exact location of the foreign body. She was therefore narcotized and the urethra dilated by means of Simon's speculum. The index finger was then hooked and the foreign body withdrawn quite easily, the entire operation taking about one minute. The patient was about attending to her regular duties in two or three days, with no bad effects. About a year ago I remember having the pleasure of entertaining the Society with an account of the value of the cystoscope as a means of diagnosis, and at that time several of the gentlemen here doubted the efficacy of this, then, rather modern diagnostic instrument. Now, I think we have shown that in this case we could not have done so very well without it. I could see just what I was doing, and could even have done better if there had been forceps on the cystoscope, as has lately been added. It was far better to know just where to look for this foreign body, than to have gone hunting around for it.

Dr. Barbat: The cystoscopic examination of the female bladder is not best made with the regular cystoscope. Howard Kelley's method by cylindrical specula, introduced with the patient's hips elevated, seems to be by far the best method, and for removing this foreign body there would have been no necessity for a further operation, as it could have been removed by small forceps through the tube. The bladder balloons out and a most perfect view is obtained. Dr. Carpenter can, no doubt, tell us all about it, as I have seen him demonstrate it several times.

Dr. Carpenter: Dr. Barbat has stated all the important points. A good point made by the doctor, too, was that the body could have been easily removed through the specula of the Howard Kelley type; and too, there was a remote possibility of Dr. Krotoszyner's breaking the needle in hooking it out with his finger. I have been quite pleased with this (Dr. Kelley's) method of examining the bladder; only the other day I readily diagnosed an epithelioma of the base and two small polypi floating loosely in the bladder.

Dr. Kenyon: I have used Howard Kelley's method and find it very good. I can concur with the views of the last two gentlemen regarding its being the better method of removing the foreign body in this case. Speaking of polypi of bladder, I would like to ask the gentlemen here present what they would do for a case of polypi in the male bladder?

Dr. Levison: I cannot concur with Dr. Kenyon. I believe Dr. Krotoszyner's plan was correct, the introduction of the cystoscope did not require any dilatation of the sphincter which would be required by Kelley's method.

Dr. Carpenter: Kelley's method is as easy, if not easier than the cystoscope; they come in various sizes, and we need only use the size we want; we seldom need one of over half an inch and the one I generally use is about ten millimeters in diameter.

Dr. Krotoszyner: Could you remove this pin through such a tube?

Dr. Carpenter: When the patient is in the correct position, hips elevated, the bowels gravitate toward the diaphragm, the air rushes into and balloons out the bladder, and anything in the bladder is brought into perfect view.

Dr. J. D. Arnold: This is somewhat out of my sphere, but I remember of a case occurring in the practice of a friend where six small hairpins, self introduced, were removed by an ordinary male sound converted into a magnet by a galvanic battery.

Dr. Kuhlman: In regard to Dr. Kenyon's query as to polypi in the male bladder, Thompson states that an exploratory incision is justifiable always.

Dr. Krotoszyner: With all due respect to this instrument spoken of by Drs. Barbat and Carpenter, I think for diagnostic purposes the cystoscope is better; it is not large and can be used on both male and female. Now in this case we did not know for sure that the pin was in the bladder. Had there been no head (instead of the head it had) my method would have been different. I think there was brought forward 40 or 50 years ago, a tube and lamp arrangement for examining the female bladder, similar to Kelley's. I know Kelley's instrument is a valuable instrument in many cases but I am sure in my case the proper method was chosen. As regards any tumor in the bladder, we do not now require an exploratory lithotomy, we can diagnose it by looking at it by the cystoscope.

STOMATITIS MERCURIALIS.

Dr. Krotoszyner also reported the following case:—Two or three months ago I was called one evening to see a child who exhibited a peculiar rash. The temperature was 99½, and after the examination I concluded surely that it was neither measles nor scarlet fever. The diagnosis was withheld and the child put on slight doses of calomel, ⅔ of a grain in 5 grains sugar of milk; made into six powders. The next day I found that the rash had disappeared; the powders had been given as directed, though the first two were spit out, three were retained and one was in the box. At this visit there was a slight pharyngitis, and next day when I called I found the child salivated to a great extent. There was an immense flow of saliva, the cheeks and gums were excoriated and the tongue thick and teeth loose. The child was fed per rectum for 10 days as it refused all nourishment. A mouth wash of permanganate of potassium, and later a gradually increasing strength of a solution of nitrate of silver was used. We could hardly take the clinical symptoms into consideration and it all narrowed down to a case of stomatitis mercurialis. This was peculiar, because the dose was very small, the child not getting over 1½ to 2 grains of calomel, and we know that children as a rule stand, proportionately, much larger doses of mercury than adults, so too in syphilitic children and mercurial unctions. The child was otherwise perfect, there being no other dyscrasia; the teeth were perfect. The text books and all authors looked into generally give larger doses than I did, and many often give it as an opening medicine in all diseases.

Dr. Kenyon: It might have been due to some acid condition, it is not always the amount of it taken. Dr. Boyson was severely salivated by two comp. cathartic pills. When the calomel treatment was more in vogue, more attention was paid to eliminating it by the bowels. In the doctor's case it was evident that it was taken up by the system.

Dr. Herrick: This old idea of acids having anything to do with these cases is not right, the normal stomach secretion is acid, and I believe that this was due to an idiosyncrasy of the child toward mercury.

Dr. P. M. Jones: There is a possibility that the calomel had deteriorated, in a case under my care 2 powders of 1 grain each set up a case of acute mercurial poisoning with salivation 24 hours after.

Dr. Kenyon: It might be that the druggist made a mistake, they do once in a while, as in one case of mine, where there was 16 times more opium in a prescription than my prescription called for!

Dr. Krotoszyner: That I investigated, there was no error there.

Dr. Davis: I think the tendency now-a-days is to use less mercury in children. Speaking of undue action, a case in point: A few weeks ago, I was called in consultation to see a 3½ year old child, with some bowel trouble, a persistent diffuse watery evacuation, the doctor had been in attendance four or five days, and had been giving ⅛ to $\frac{1}{10}$ calomel every three or four hours. The calomel was dropped and within 24 hours there was a very marked improvement, and a cure in four or five days. As to the eruption, I remember a case fourteen years ago in a 5 year old child, had been given calomel and a decidedly suspicious scarlet rash appeared. The calomel was stopped and the rash disappeared. It was evidently a neurosis.

Dr. Taylor: After some experiments read where calomel alone and in various combinations was used, thought the results had shown that it was safer to give small doses or else one dose and something to carry it off.

Dr. Kuhlman: This case evidently was one of two things, either an idiosyncrasy or impure calomel. After an experience of 15 years as a Pharmacist, I can say that I found many samples of adulteration with bichloride. We also have a rash with calomel in some cases.

The Secretary: As I understand this case of Dr. Krotoszyner, the rash appeared previous to the administration of the calomel, did it not?

Dr. Krotoszyner: It was previous, and by the next day it had gone.

The Secretary: We often have in children varieties of a transient or ephemeral eruption that comes in a day and as readily goes away. Causes are unknown, perhaps some emotional disturbance.

Dr. Levison: The mere fact of the salivation of this child seems to have been over-looked. This was simply a case of mercurial stomatitis.

Dr. Kerr: As to rashes, we often find them that extend over the whole body and very much resemble the scarlet fever rash, they last a variable time, and as a rule cover the body more quickly than other rashes. I myself had such a rash for two succeeding years and was treated the first time for scarlet fever. We have fatal cases of stomatitis, characterized by an irritating, thick mucous discharge, of a peculiar grayish color; this is rapidly fatal, however. Maybe Dr. Krotoszyner's case was similar to these.

Dr. Krotoszyner: I do not believe that my case was similar to the cases spoken of by Dr. Kerr. There was no kidney disturbance, rash went quickly away without desquamation, the stomatitis started within 24 hours after the first dose of calomel. The life of the child was really endangered, and that such a bad result could come from calomel in such small doses should be borne in mind by every practitioner. For calomel is used by everybody, generally quite freely.

Dr. Arnold: I believe with Dr. Kenyon that the calomel should have been carried off by the bowels more thoroughly, for when not done we are liable to have constitutional disturbances.

CARBOLIC ACID POISONING.

Dr. Kuhlman: I have a case I should like to report, which is interesting in these microbic days of medicine. A colleague of mine had been called to a case of abortion; had curetted the uterus and in two days a temperature of 104° took place. Becoming alarmed I was called in consultation. The patient was anæsthetized and the os dilated, when it was found that the uterus was perfectly clean and empty. On withdrawing my finger after examination, I noted a strong carbolic acid odor and on investigation found the *cul de sac* in the vagina filled with a strong carbolic solution which had been used as an irrigation. The doctor having left carbolic acid there and when the nurse made the solution it was made too strong. We both came to the conclusion that instead of a septic condition we had to deal with a case of carbolic acid poisoning. This solution was immediately washed out and none used further; the temperature dropped at once to normal and the patient made a perfect recovery. This is an important case, many so-called cases of infection may be simply cases of carbolic poisoning.

Dr. Farnham: Was there anything in the urine?

Dr. Kuhlman: There was no urine at the time we found this condition, and she recovered so rapidly, that there was no necessity of examining the urine.

There being no further business the meeting adjourned.

A. P. Woodward, M. D., Secretary.

REPORT OF THE STATE BOARD OF HEALTH.

By J. R. LAINE, M. D., Secretary State Board of Health.

DEATHS.—Reports from fifty-two cities, towns, villages and sanitary districts, aggregating a population of seven hundred and sixteen thousand eight hundred and six, show a mortality of nine hundred and fifty-three—a death-rate of 1.32 per thousand for January, 1896, or 15.84 per thousand per annum.

There were one hundred and eighty-three deaths from consumption, ninety-nine from pneumonia, thirty-four from bronchitis, eighteen from congestion of the lungs, four from diarrhœa and dysentery, three from cholera infantum, fifty-five from other diseases of the stomach and bowels, eight from diphtheria, five from croup, two from scarlatina, four from measles, three from whooping-cough, nineteen from typhoid fever, four from malarial fevers, five from cerebro spinal fever, thirty-five from cancer, two from erysipelas, one hundred and eight from diseases of the heart, five from alcoholism, and three hundred and fifty-seven from all other causes, two of which were from la grippe.

PREVAILING DISEASES.—Reports from thirty localities, outside of the larger cities and towns, give sixty-two cases of pneumonia, one hundred and seven of bronchitis, twenty-two of pleurisy, seventeen of congestion of the lungs, thirty of diarrhœa, seven of dysentery, six of cholera morbus, three of cholera infantum, fourteen of diphtheria, eleven of croup, six of scarlatina, twenty-nine of measles, nine of whooping-cough, one hundred and forty-four of la grippe, eleven of typhoid fever, eighty-three of malarial fevers, one of erebro-spinal fever, thirteen of erysipelas, seventy-eight of rheumatism, seventy-seven of neuralgia, eighty-four of tonsilitis, and forty-three of pharyngitis.

Whooping-cough was reported epidemic at Orange Vale, and chicken-pox was reported epidemic at Los Angeles.

SMALLPOX.—Three cases of smallpox have developed in the southern part of the State, infection having taken place in Arizona, near the Mexican line. The usual precautions were taken, such as vaccination and isolation, and it is hoped that the disease may not spread. The only incident of special interest in the matter is the fact that one of the first patients was a physician. When physicians, no matter what kind, keep themselves in a condition capable of taking smallpox, there may be valid excuses for other people. But it must be remembered that physicians may be ignorant, prejudiced, cranky, and even insane.

FOURTH ANNUAL SANITARY CONVENTION.—The fourth annual Sanitary Convention will be held at Los Angeles on April 20th, 1896, under the auspices of the State Board of Health. A general invitation is extended to all physicians and sanitarians to attend and take part in the transactions, and present, if possible, short and well digested articles not consuming more than ten minutes in reading. No special invitations will be sent, as the Convention is a public meeting held at the expense of the State, and all persons interested in sanitary matters are cordially invited to participate. All the papers presented, as well as the transactions, will be published in the next biennial report of the State Board of Health.

Licentiates of the California State Board of Examiners.

At a meeting of the Board of Examiners of the Medical Society of the State of California, held January 15, 1896, the following were granted certificates to practice medicine and surgery in this State:

Cashon, Pleasant A., Pomona; Med. Dept. Univ. Louisville, Ky., Feb. 2, 1864.

Hull, Geo. S., Pasadena; Med. Dept. Univ. Penn., March 1, 1876.

Johnston, Wm. M., Los Angeles; Med. Dept. Univ. Michigan, June 30, 1887.

Knox, Charles R., Los Angeles; Rush Med. Coll., Ill., Feb. 21, 1882.

Marshburn, W. V., Elmodena; Med. Univ. Louisville, Ky., March 2, 1886.

Nast, John E., Oakland; Med. Dept. Univ. Cal., July 13, 1895.

Payne, Robert E., San Francisco; Coll. Phys. and Surg., Ill., April 3, 1894.

Provins, C. B., San Francisco; Rush Med. Coll., Feb. 21, 1882.

Shorb, J. DeBarth, Jr., Los Angeles; Med. Dept. Univ. Penn., June 13, 1895.

Stinson, J. C., San Francisco; Univ. Trinity Coll., Canada, April 4, 1893.

Case, Martha S., San Francisco; Cooper Med. Coll., Cal., Dec. 5, 1895.

Dukes, Charles A., North Temescal; " " " Dec. 5, 1895.

Garvin, Chas. L., San Francisco; " " " Dec. 5, 1895.

Gunn, Herbert, San Francisco; " " " Dec. 5, 1895.

McNulty, Harry J., San Francisco; " " " Dec. 5, 1895.

Prentice, A. D., Sacramento; " " " Dec. 5, 1895.

Robinson, F. B., San Francisco; " " " Dec. 5, 1895.

Wythe, Stephen, San Francisco. " " " Dec. 5, 1895.

At a meeting of the Board of Examiners of the Medical Society of the State of California held February 19, 1896, the following were granted certificates to practice in this State:

Ap John, Henry Joseph, Campo; Med. Dept. Willamette Univ., Or., April 4, 1892.

Congdon, Willis R., Santa Cruz; Rush Med. Coll., Ill., Feb. 19, 1889.

Dove, O. H., Oakland; Med. Coll of Indiana, March 30, 1893.

Gerow, Arthur M., Los Angeles; Med. Dept. Univ. Buffalo, N. Y., Feb. 25, 1868.

Gray, A. J., San Diego; Dartmouth Med. Coll., N. H., Oct. 31, 1860.

Hargrave, H. P., Oakland; Univ. of Manitoba, Canada, April 17, 1895.

Joralemon, J. C., Los Angeles; Rush Med. Coll., Ill., Feb. 21, 1877.

Kohlmoos, H., San Francisco; Univ. of Giessen, Germany, Nov. 22, 1893.

Lalonde, E. C., Los Angeles; School of Med. and Surg., Canada, May 10, 1881.

Petitt, Marshall, Los Angeles; Med. Coll. of Indiana, Feb. 28, 1879.

Porter, Chas. S., Los Angeles; Med. Dept. Univ. City of New York, April 7, 1893.

Strong, Philip K., Los Angeles; Bellevue Hosp. Med. Coll., N. Y., March 12, 1888.

Vaughan, C. E., Santa Barbara; Harvard Med. Coll., Mass., July 15, 1863.

Weed, Gideon A., Berkeley; Rush Med. Coll., Ill., Feb. 2, 1870.

Anderson, Edith V., San Francisco; Cooper Med. Coll., Cal., Dec. 6, 1894.
Carpenter, Allen M., Berkeley; " " " Dec. 5, 1895.
Holmes, Clara May, Oakland; " " " Dec. 5, 1895.
Peters, Birger, San Francisco; " " " Dec. 5, 1895.
Roblee, Wm. W., Riverside; " " " Dec. 5, 1895.
Stone, Bertram, Redding; Med. Dept. Univ. Cal., July 13, 1895.

Chas. C. Wadsworth, M. D., Secretary,
518 Sutter Street, San Francisco, Cal.

Literary Department.

Under the charge of W. F. McNUTT, M.D., M.R.C.S., Edin., etc.
Professor Principles and Practice of Medicine in the Medical Department
University of California, etc.

Twentieth Century Practice. An International Encyclopedia of Modern Medical Science. By leading Authorities of Europe and America. Edited by Thomas L. Stedman, M. D., New York City. In twenty volumes. Volume VI. "Diseases of the Respiratory Organs." New York: William Wood and Company. 1895. For sale at the Popular Book Store, 10 Post St., San Francisco.

Owing to some unforeseen difficulty, the birth of vol. 5 has been delayed and vol. 6 has been *delivered* to subscribers out of its natural order. If vol. 6 has been a little previous, a careful perusal of its contents will convince the reader that it is not premature. This volume is a very important one on a most important subject—diseases of the respiratory organs. It is prepared by eight contributors, as follows: Dr. Prosser James, London; Dr. Jonathan Wright; Diseases of the Naso-Pharynx and Pharynx and Diseases of the Tonsils, Dr. E. J. Moure; Diseases of the Ears, Dr. A. H. Buck; Diseases of the Larynx, Dr. F. H. Bosworth; Diseases of the Trachea and Bronchial Tubes, Dr. T. G. Stewart and Dr. George A. Gibson; Diseases of the Lungs, except tuberculosis and croupous pneumonia, Dr. Winslow Anderson, San Francisco; four of whom are Americans, three British, and one French. Naturally the first article is on Diseases of the Nose, and is by Dr. James. It occupies 76 pages, is well illustrated and is concisely and lucidly written. It cannot fail to give excellent satisfaction to subscribers. The second chapter is by Dr. Wright, on Diseases of the Accessory Sinuses of the Nose. These diseases are too apt to be overlooked often by the general practitioner and not infrequently by the specialist. Diseases of the Naso-Pharynx and Pharynx occupies the next 106 pages, and is by the well known Dr. Moure; this chapter is well illustrated and capitally written. Then follows 50 pages on Diseases of the Ear, by Dr. Buck, and the next on Diseases of the Tonsils, by Moure. The article on Diseases of the Larynx covers 168 pages, and is by the well known authority on the subject, viz., Dr. Bosworth. Drs. Stewart and Gibson follow on the Diseases of the Trachea and Bronchial Tubes. The last 100 pages are devoted to Diseases of the Lungs, by Dr. Winslow Anderson. This is one of the very best prepared and most exhaustive and up-to-date articles in the volume.

OUTLINES OF MATERIA MEDICA AND PHARMACOLOGY. A Text-Book for Students. By H. M. BRACKEN, M. D., Professor of Materia Medica, Therapeutics and Clinical Medicine, University of Minnesota. Philadelphia: P. Blakiston, Son & Co. 1895. Price, $2.75. For sale at the Popular Book Store, 10 Post St., San Francisco.

The author has taken great pains to make a good text-book for students. He knows well by experience what the student needs. The subjects are in a natural order well calculated to facilitate their study. Part 1, Introduction; Part 2, The Acids, Part 3, The Metals, Part 4, The Non-Metallic Elements, Part 5, The Carbon Compounds, Part 6, The Animal Kingdom, Part 7, The Vegetable Kingdom. While both systems of weights and measures are given the metric has been given the preference. Students will find this a useful book in the laboratory.

A MANUAL OF THE PRACTICE OF MEDICINE. By GEORGE ROE LOCKWOOD, M. D., Professor of Practice in the Woman's Medical College of the New York Infirmary; Attending Physician to the Colored Hospital and to the (City) late Charity Hospital; Pathologist to the French Hospital; Member of the New York Academy of Medicine, of the Pathological Society, of the Clinical Society, etc. With 75 illustrations in the text and 22 full page colored plates. Philadelphia: W. B. Saunders, 925 Walnut street. Price, $2.50 For sale at Popular Book Store, 10 Post St., San Francisco.

No doubt manuals are necessary, it is not always possible or convenient to consult the larger text-books. The object or excuse for its existence is that the reader shall be able to find the gist of a subject in a condensed form. The author of this manual has succeeded in making a very good condensation of the facts and principles of the practice of medicine. In arranging the subject matter the author has followed the classification of Osler's text-book. Very great care is required in writing a manual; conciseness is an essential, but it is all important that the concise statement be clear.

MEDICAL DIAGNOSIS WITH SPECIAL REFERENCE TO PRACTICAL MEDICINE. By J. M. DA COSTA, M. D., LL. D., President of College of Physicians, Philadelphia. Eighth edition; 8 vo., pp. 1104. J. B. Lippincott Co. 1895. For sale at Popular Book Store, 10 Post street, San Francisco.

No work is better or more favorably known to the American medical profession than this one. It is about thirty years since the first edition was published. As a matter of course this eighth edition needs neither introduction nor recommendation. It is well however to state the fact that the venerable author was not satisfied to merely issue an eighth edition because the seventh was exhausted. To give his own words: "I have revised the work and altered some of the chapters. New matter has been inserted, old matter in parts condensed. I have endeavored to incorporate whatever of bacteriological interest appeared to be established as valuable for diagnostic purposes. The introduction of a number of additional wood-cuts and of temperature charts taken from cases actually observed, will, I trust, conduce to greater clearness and accuracy." The general arrangement of the book has been maintained, viz: classifying the diseases according to their more prominent symptoms, rather than their pathological lesions. Both student and general practitioner will be glad to receive this new edition of this classical work, from the hands of the master himself.

MEDICAL JURISPRUDENCE, FORENSIC MEDICINE AND TOXICOLOGY. By R. A. WITTHAUS, A. M., M. D., Professor of Chemistry, Physics and Hygiene, in the University of the City of New York, and TRACY C. BECKER, A. B., LL. B., Counsellor at Law, Professor of Criminal Law and Medical Jurisprudence in the University of Buffalo, with the Collaboration of August Becker, Esq., Chas. A. Boston, Esq., Hon. Goodwin Brown, W. N. Bullard, M. D., G. C. Cameron, M. D., J. Edgar, M. D., G. J. Edwards, Esq., E. D. Fisher, M. D., J. C. Johnson, M. D., D. S. Lamb, M. D., H. P. Loomis, M. D., David Murray, Esq., W. B. Outten, M. D., Roswell Park, M. D., W. T. Parker, M. D., J. Parmenter, M. D., Hon. William A. Poste, Irving C. Ross, M. D., E. V. Stoddard, Edward S. Wood, M. D., George Woolsey, M. D., J. H. Woodward, M. D. Volume 3. New York, William Wood & Co. 1896. For sale at Popular Book Store, 10 Post St., San Francisco.

The contents of this volume are as follows: 1. Vision and Audition in their Medico-Legal Relations. 2. Medico-Legal Aspect of Insurance. 3. Insanity in its relations to Medical Jurisprudence. 4. Mental unsoundness in its Legal Relations. 5. Care and custody of Incompetent Persons. 6. Table of Cases cited in this volume. From the above contents it will be readily seen that this volume is of the very greatest importance

to physicians generally and to those who give expert testimony particularly. Every general practitioner, especially in the country, is liable to be called on for expert testimony, and to have an exhaustive work on Medical Jurisprudence at hand is an immense satisfaction. In fact, a case that involves a question of Medical Jurisprudence in a country town often attracts the attention of the whole town and country, and the physician's testimony is looked forward to with great interest. To be well prepared for such an occasion often adds very greatly to his reputation, and enables him to put the community right on questions of which they know little. Included in the chapters are "The Care and Custody of Incompetent Persons and their Estates," and "The Statutes of all the States, Digested, Relating to the Care and Custody of Incompetent Persons and their Estates, and the Commitment and Confinement of Insane Persons." This volume will give satisfaction to those who consider the first two volumes invaluable.

ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES. A yearly report of the progress of the General Sanitary Sciences throughout the world. Edited by CHARLES E. SAJOUS, M. D., and seventy associate editors, assisted by over two hundred corresponding editors, collaborators and correspondents. Illustrated with chromo-lithographs, engravings and maps. 1895. The F. A. Davis Co., publishers: Philadelphia, Chicago, New York. London: F. J. Rebman. Australian Agency, Melbourne, Victoria. For sale at Popular Book Store, 10 Post St., San Francisco.

These five volumes constitute the eighth issue of the Annual and are a most exhaustive epitome of the discoveries and investigations that have been made in the laboratories and of the advancements in every department of scientific and practical medicine. Nothing of interest seems to have escaped the editor and his seventy associates. Dr. J. C. Wilson, of Philadelphia, is responsible for the article on Diseases of the Lungs and Pleura. Dr. Gray, of New York, writes on the Brain. Prof. Rubino, of Naples, on the Mouth, Stomach, Liver and Pancreas. Norman Kerr's resumé of the subjects, Inebriety, Morphinism and kindred diseases, is excellent. It is, however, unnecessary to select particular articles for commendation. The busy practitioner requires to keep the volumes near at hand and from time to time inform himself what is being accomplished in all branches of the profession. Annuals made up as these volumes are by experienced collaborators, have become an absolute necessity for the practitioner who would keep himself abreast of the times.

Therapeutic Notes.

A Pacific Coast Industry.

We desire to call our readers' attention to some practical notes on another page pertaining to Clinton E. Worden & Co.'s special preparations. Their points are well taken, as it is but a too common occurrence that prescribers get very unsightly, unpalatable and often incompatible mixtures through misunderstanding in combining certain preparations, results not appreciated by their patients. While on this subject we desire to express our pleasure at the remarkable progress made of late by the house of Worden & Company, showing what untiring energy and perseverance can do. They have built up a magnificent business, which is a great credit to Pacific Coast industry, in face of the intense competition by our Eastern friends.

Abortive Treatment of Coryza.

For the aborting of an acute coryza in the early stages, Capitan recommends the insufflation of the following powder into each nostril:

℞ Pulv. talc., gr. lxxv.
Antipyrine, gr. xv.
Acid. boric (pulv.) gr. xxx.
Acid. salicylic, gr. iv.

A pinch of this may be frequently used.

Antipyrin-Salol in the Treatment of Uterine Hemorrhage.

Professor Labadie-Lagrave has used antipyrin successfully in the treatment of certain uterine hemorrhages. It is difficult to introduce powdered antipyrin into the uterine cavity, so it occurred to him to use antipyrin liquified with salol, thus producing a medicament at once hemostatic and antiseptic. The following is the mode of procedure: equal parts of antipyrin and salol are placed in a test tube so as to occupy about one-third the space; they are then heated over an alcohol lamp, when the mixture is soon transformed into a clear liquid with a slightly brownish tinge. This is not the time to use the solution, for it will solidify too rapidly. The heating is continued until a well-defined brown color is noticed, when there is no longer any danger of its rapid solidification. The liquid is introduced by means of cotton soaked in it and rolled on a wooden applicator; after seeing that the liquid is not too hot, the application is made through the speculum. If the hemorrhage is excessive, two applications are made at the same sitting, after which a tampon soaked in glycerated creosote is placed in the vagina and the patient sent to bed. The applications are free from danger and occasion no pain. Their hemostatic action is rapid, sure and complete; the hemorrhage is quickly stopped, and by the second day there is no trace of bleeding; it is rare that the application needs to be repeated. The method is efficacious against hemorrhages due to fungous metritis, to misplacements, fibromyomata, and also to malignant tumors in the beginning, when the hemorrhage is due more to congestion than to ulceration. Schulze-Berge & Koechl, 79 Murray street, New York, are the sole licensees for antipyrin in the United States.

Benzosol.

Dr. S. Solis Cohen prescribes:

℞	Benzoyl-guaiacol (Benzosol)....	℥j
	Powder of digitalis............	gr. iij
	Eucalyptol....................	m. xxiv
	Extract of gentian............	q. s.
M.	Make 12 capsules.	

Sig.—One capsule four times a day.

This combination is used in certain cases of pulmonary tuberculosis, in which it is desired to act upon the heart in order to improve the pulmonary and general circulation; and to stimulate the bronchial mucous membrane and respiratory tract in general.

Appendicitis.

P. Blakiston, Son & Co., of Philadelphia, announce a book on "Appendicitis" by John B. Deaver, M. D., Assistant Professor of Applied Anatomy, University of Pennsylvania; Assistant Surgeon to the German Hospital, etc. The book will be arranged in a practical and systematic manner. The history, etiology, symptoms, diagnosis, operative treatment, prognosis and complications of this disease will be given in the order named. It will contain about forty illustrations of methods of procedure in operating and typical pathological conditions of the appendix, the latter being printed in colors.

Accurate Administration of Lithia.

Wm. R. Warner & Co.'s original Lithia Water Tablets (3 and 5 grains) admit of an accurate dosage of Lithia not to be obtained in any natural Lithia Water. These tablets are securely packed so as to maintain their permanency, in consequence of which, when a Lithia Water Tablet is placed in a glass of water it quickly dissolves, effervescing in so lively a manner as to excite the interest of the patient to such a degree, that the unpleasant thought that he is about to take a medicine, does not arise. Now that Lithia has become a valuable remedy for rheumatism, lithemia, gout, gravel, Bright's disease, etc., these tablets are without doubt the most convenient method to administer it, as enough Lithia Water Tablets may be carried in the pocket to make 2½ gallons Lithia Water of definite strength.

The Nutrition in Anæmia and Chlorosis.

While the ferruginous preparations occupy an important place in the treatment of anæmic conditions, it is equally essential to promote the nutrition by the use of readily digestible and assimilable foods. A milk diet is frequently recommended in these cases, but owing to the impaired digestion and loss of appetite usually present in anæmia and chlorosis, is apt to be badly tolerated, and may excite repugnance. These patients often also refuse meats prepared in any form, and manifest a strong liking for indigestible articles of food. In view of the great importance of administering a sufficient amount of digestible albumins in these cases, in order to raise the nutrition, it is of interest to note that a preparation is now in the market which enables the physician to administer the assimilable albumins of meat in an acceptable form and without disturbing the appetite. This preparation which is known under the name of Somatose consists of the albumoses in a concentrated form, and being tasteless, odorless and soluble in all ordinary fluids, is well tolerated by these capricious patients and can be administered even without their knowledge. Somatose has besides that remarkable property of stimulating the appetite for other foods so that it must be regarded not only as a nutrient par excellence, but as a tonic and appetizer. The value of this food product in the alimentation of anæmic and chlorotic patients has been pointed out by a number of authors, among whom may be mentioned Drs. Weber, Thomalla, von Noorden, Fisch and Wirz, but is strikingly shown by a report of Dr. Spiegelberg from the City Hospital of Frankfort, Germany. Somatose was employed in ten cases of pronounced chloro-anæmia, one teaspoonful being given three to four times daily, and care being taken that it was completely dissolved in the fluid selected. The preparation was well borne and never excited gastric disturbance. Under its administration the face soon assumed a healthier color, the appetite improved, the numerous symptoms peculiar to the anæmic state disappeared, and there was a distinct increase in weight. In one case the increase in weight amounted to thirteen pounds in one month, in another eight pounds in three weeks, in two others five pounds in two weeks. From an analysis of these cases as well as from a study of the already abundant literature on Somatose, it would appear that this product is a valuable adjunct to the iron compound in the treatment of anæmia and chlorosis.

Tuberculosis.

"One of the most common pathological conditions—resulting from various causes—which prepares a favorable soil for this propagation of germs, is anæmia. This condition requires prompt attention, especially in cases where there may be a predisposition to tuberculosis. To meet it, we should not resort to the renal preparations of iron, which not only act as irritants or astringents, but are not absorbed and consequently do not restore to the blood what is lacking. We should endeavor to find an iron food which is readily absorbed and assimilated. The preparation known as 'Ferratin' is best adapted to our use. It bears a similar relation to other preparations of iron that the fats of hydro-carbons bear to the carbo-hydrates in their relation to digestion, that is, it enters into the system in the desired form, not requiring to be converted, to be of service. This is a synthetic preparation of iron, exactly corresponding to the iron found in food from the animal kingdom. It is a ferric-acid albuminate. It will agree with the most delicate stomach. It will answer an admirable purpose not only in restoring to the blood the needed iron, but it will also act as a tissue-builder in all cases of general exhaustion."—Editorial in *The St. Louis Medical Era* (Dr. S. C. Martin), December, 1895.

A New Firm.

NEW YORK, Feb. 1, 1896.

TO THE EDITOR OF THE PACIFIC MEDICAL JOURNAL:

Dear Sir:—I beg to inform you that I have this date transferred the business which I have carried on during the last three years under the firm name of Schulze-Berge & Koechl to Victor Koechl & Co. The new company assumes all assets and liabilities of the old firm, and will continue the business as heretofore. While thanking you for the confidence bestowed on my firm in the past, I trust that you will also extend same to the new company, whose officers will, besides myself, be those who were active for a number of years in the management of the business of the old firm. Yours truly, VICTOR KOECHL.

Phytoline.

I have used your preparation of Phytoline in several cases of obesity with excellent results, one patient being reduced from 207 to 148 pounds, and in another case of fatty degeneration of the heart, was very much pleased indeed with its action.

J. W. HUNTINGTON, M. D.

The Treatment of Insomnia in Typhoid Fever.

By JOHN P. HILLEGASS, M. D., Philadelphia. Pa.

About six years ago when practising in a rural district, I had occasion to observe a large number of cases of typhoid fever, which prevailed as an epidemic. Among the forty-three cases treated by me there were but two deaths, a mortality of only five per cent. The fact that the death rate from this disease is so much lower in the country than in our crowded cities is attributable to the superior advantages in the ventilation of the rooms and houses, and the greater purity of the milk supply.

Without entering into the details of the treatment instituted in these cases I desire to call attention in this brief communication to the excellent results obtained from the use of sulfonal in relieving the insomnia that is so frequently present in typhoid fever. To the employment of this drug I attribute no small share in my successful results in these cases, for it is well known that persistent insomnia in typhoid fever, if not promptly relieved, adds materially to the existing exhaustion and debility and renders the prognosis much worse.

In one case, that of an old man, eighty-four years old, suffering with typhoid, the patient was unable to sleep and would lie awake all night. Having tried opiates and chloral without effect, I resorted to the use of sulfonal, which induced natural and undisturbed night's rest. I gave him a fifteen grain powder every evening and never failed to obtain the desired result. As there were no depressing after effects I continued the drug until the period of recovery which took place in fourteen weeks.

I have yet to see the first case where sulfonal exerted an injurious action on the patient.

Another case which I treated about the same time as the above may prove of interest as it also illustrates the beneficial influence of sulfonal in typhoid fever. Mrs. M., aged sixty-five years, suffered from marked insomnia during the course of the disease. I prescribed fifteen grain doses of sulfonal in half a cupful of hot coffee at night, with admirable results, and she took one powder every evening until convalescence set in.

In the majority of my cases of typhoid fever I gave sulfonal with the desired effect, and I would add my testimony to that of others who have found it an efficient, safe and reliable hypnotic and sedative in this disease. It is especially useful in cases attended with marked restlessness, jactitations, delirium and sleeplessness.

1618 West Dauphin St.

Hernia.

There is a point in connection with this subject which seems more often than otherwise to be overlooked. When a physician is about to prescribe a truss for a sufferer, he should take into account two things: his patient should speedily enjoy a radical cure, or, he must conclude that a truss for the rest of his mortal life will be an absolute necessity. It is therefore a matter of vital importance as to what is selected for his use. It is a fact that cannot be questioned that more cures follow the proper use of a good truss than any other method of treatment yet discovered.

This one fact alone makes the best truss the one to advise. If a proper truss is applied in the beginning and nature is not sufficiently strong to restore the parts to their natural condition, which means a cure, the patient will be insured comfort and safety. For thirty-five years Seeley's hard rubber trusses have been before the profession, and have won their way to the front, as being nearly perfect as anyone has yet been able to discover in the way of a truss. They will cure all curable cases. They can be worn under all circumstances by all classes of people without any discomfort, and the better patterns will last a lifetime. Physicians can learn fully of these trusses by addressing I. B. Seeley & Co., 25 South Eleventh Street, Philadelphia, for a catalogue, which contains much original matter on the subject of "The Mechanical Treatment of Hernia," in which every physician is interested.

Neurosine.

The most powerful neurotic attainable, anodyne and hypnotic. A reliable and trustworthy remedy for the relief of hysteria, epilepsy, neurasthenia, mania, chorea, uterine congestion, migraine, neuralgia, and all convulsive and reflex neuroses. The remedy par excellence in restlessness or fevers. Producing natural sleep. Composition, chemically pure bromides of potassium, sodium and ammonium, zinc, extract belladonna, cannabis indica and cascara sagrada with aromatic elixirs, with the medicinal effects of which the profession are well acquainted.

Peacock's Bromides.

I am slow to give an opinion until it is justified by conviction. Continued trial of Peacock's Bromides in nervous disorders where the compounds of bromine are indicated, has resulted in a full recognition of the decided superiority of your preparation over any of the bromides singly administered. In efficacy and promptness of action, regardless of idiosyncrasy and other conditions, Peacock's Bromides excel in such a degree that when they are within reach I never prescribe or employ the bromides in any other form. A. B. C. Clements, M. D.

Washington, D. C.

Borine.

Dr. A. Schirman, 117 Madison Street, N. Y., says: "I have obtained desired satisfaction after using Borine in the treatment of rhinitis and tonsilitis. I was more than pleased with the results in cases where an antiseptic was generally urgent and have no hesitation in recommending Borine to the medical and dental profession." Lenox Brown says that the nose is the key to a right understanding and successful treatment of the majority of faucial, pharyngeal and laryngeal diseases, and of many diseases of the ear.

Many of the illnesses of childhood would be prevented if as soon as the child's nose commenced to run proper attention were paid to it. Nothing can be better than irrigation of the nasal cavities several times a day with a mixture of one part Borine to twenty of hot water by means of a nasal douche cup. Its antiseptic and stimulating properties are of special value in the treatment of catarrhal and other conditions of all of the mucous membranes, removing all purulent and foul secretions, relieving inflammation and promoting a healthy condition of the affected part.

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Original Articles.

THE HEREDITYOF RICHARD ROE.

A Condensation of a Lecture by DAVID STARR JORDAN, President Leland Stanford University, delivered before the Veterinary Department of the University of California.

When Richard Roe was born, "the gate of gifts was closed" to him. Henceforth he must expect nothing new and must devote himself to the development of the heritage he had received from his father and mother. He must bring its discordant elements into some sort of harmony. He must soften down their contradictions. He must train his elements of strength to be helpful to some one in some way, that others may be helpful to him. He must give his weak powers exercise, so that their weakness shall not bring him disaster in the competition of life. For it is likely that somewhere, somehow, it will be proved that no chain is stronger than its weakest links. Other powers not too weak, nor over strong, Richard Roe must perforce neglect, because in the hurry of life, there is not time for every desirable thing. In these ways the character of Richard Roe's inheritance is steadily changing under his hands. As he grows older, one after another the careers that might have been his, the men he might have been, vanish from his path forever. On the other hand, by steady usage a slender thread of capacity has so grown as to become like a strong cordage.

Now, for the purposes of this discussion, you or I may be Richard Roe. So might any one of your friends or acquaintances. So far as methods and principles are concerned Richard Roe may be your lap-dog or your favorite horse, or even your *bete noir*, if you cherish beasts of that character. Any beast will do. With Algernon Fitz Edward De Courcy or Clara Vere de Vere, the case would be just the same.

The man Richard Roe enters life with a series of qualities and tendencies granted him by heredity. Let us examine this series. Let us analyze the contents of this pack which he is to carry through life to the gate of the Golden City.

To begin with, Richard has inherited humanity, the parts and organs and feelings of a man. "Hath he not eyes? Hath he not hands, organs, dimensions, senses, affections, passions?" Descended for countless ages from man and woman, man born of woman Richard Roe surely is. We may go further with certainty. Richard Roe will follow the race-type of his parentage. If he is Anglo-Saxon as his name seems to denote, all Anglo-Saxon by blood, he will be all Anglo-Saxon in quality. To his characters of common humanity we may add those common to the race. He will not be negro nor mongolian, and he will have at least some traits and tendencies not found in the Latin races of Southern Europe.

But his friends will know Richard Roe best not by the great mass of his human traits or his race characteristics. They will know him by his specialties. Within the narrowest type there is room for an almost infinite play in the minor variations. For almost any possible one of these Richard Roe could find warrant in his ancestry. His combination of them must be his own. That is his individuality. Color of eyes and hair, length of nose, hue of skin, form of ears, size of hands, character of thumb-prints, in all these and ten thousand other particulars, some allotment must fall to Richard Roe. He must have some combination of his own, for nature has broken the tie in moulding each of his ancestors and will tolerate no servile copy of any of her works. By the law of sex, Richard Roe has twice as many ancestors as his father or his mother had. Therefore these could give him all they had severally received from their own parents. The hereditary gifts must be divided in some way, else Richard Roe would be speedily overborne by them. Furthermore, any system of division nature may adopt could be only on the average an equal division. Richard Roe's father could say "with half my qualities I thee endow," the mother furnishing the other half. Nature tries to arrange for something like this but she can never divide evenly, and some qualities will not bear division. Richard Roe's share forms a sort of mosaic, part of unchanged characters standing side by side in new combinations, part a mixture of characters, and part of characters in perfect blending.

The physical reason for all this, physiologists are just begining to trace. The place of division and integration they find in the germ cell itself—the egg and its cognate. At the same time they find that nature's love of variation is operative even here. She has never yet made two eggs or two sperm cells exactly alike.

The germ cell—male or female (and the two are alike in all characters essential to this discussion) is one of the vital units set apart for a special purpose. It is not essentially different from other cells, either in structure or in origin. But in its growth it is capable of repeating the whole organism from which it came "with the precision of a work of art." The germ cell is make up of protoplasm, a jelly-like substance, less simple than it appears, and in connection with which develop all known phenomena of life. Within the protoplasm is the nucleus of the cell, a smaller cell with the protoplasm. In connection with the nucleus appear most of the phenomena of hereditary transmission. Its structure in the higher animals is a complicated arrangement of loops and bands, the substance of these being called chromatin. This name is given because its substance takes a deeper stain of color than ordinary protoplasm or other cell-materials. In the chromatin are the determinants of heredity, and these preside in some way over all movements and all changes of the protoplasm. In the fertilized egg, the mixed chromatin of the two cells which have been fused into one may be said to contain the architect's plan by which the coming animal is to be built up. In the mixed chromatin of the cell which is to grow and divide, to separate and integrate, till it forms Richard Roe, the potentialities of Richard Roe all lie in some way hidden. It is not easy to see how his tones of voice or the color of his hair, or his ear for music, or other hereditary qualities can be thus hidden. But so they seem to be and if science should stop whenever she came to a mystery, the growth of knowledge would be hemmed in more closely than it is now. Where nature is getting the germ-cells ready, this hereditary material is increased in each one and then again divided and subdivided, till in the ripened cell but half the usual amount is present. The cell is then ready to unite with its fellow to form a perfect cell, from which under favorable circumstances, the great alliance of cells which constitute the body of Richard Roe can be built up.

Nature makes her divisions evenly enough, but never quite equally. She is satisfied with an approximate equality, better satisfied than if she could make a perfect division. She knows no straight lines; she never made a perfect sphere, and she takes the corner away from every angle. It satisfies her desire for likeness to have her children almost alike. Exact symmetry would exclude variation for which she cares still more, and for good reason. If her creatures are left unlike, it is so much the easier for her to find places for them in the crowded world of life. Moreover unlikeness gives play for selection. She can save her favorites and discard her failures.

So in the chromatin of his two parents Richard Roe finds his potentialities, his capacities and his limitations. But latent in these are other capacities and other limitations, handed down from other generations before them. Each grandfather and grandmother has some claim on Richard Roe, and behind these, "dead hands from older graves" are still beckoning in his direction. The past will not let go, but with each generation the dust grows deeper over it. Moreover these old claims grow less and less with time because, with each new generation, there are twice as many competitors.

The experience of life, the stress of environment, the effect of education, the growth through voluntary effort, the depression from involuntary work or idleness, the degeneration through the vitiation of nerve-honesty caused by stimulants or by vice, the deterioration due to spurious pleasures that burn and burn out, each of these may have come to the father of Richard Roe, and each one has left its mark on him. The fairy's wand and the fool-killer's club each leaves an indelible trace whenever it is used. Through these influences every man is changed from what he was or what he might have been toward what he is.

How much of this is inherited? How do these favors affect the character of Richard Roe? Some learned investigators, notably August Weismann and Alfred Russell Wallace, say that these changes count for nothing; in inheritance, all these modifications spend their force on the generation that develops then. Acquired characters are never inherited. Other investigators, equally wise, Herbert Spencer, for example, do not admit that any gain or loss to the individual is without its effect on the species. "Changes of function produce changes of structure," so Spencer tell us; "it is a tenable hypothesis that changes of structure thus produced are inherited."

But though this may be a tenable hypothesis, the opposite hypothesis has not been clearly shown to be untenable. It seems to be true that any great physical weakness on the part of Richard Roe's parents would tend to lower his constitutional vigor, whatever the origin of such weakness might be. If so, such weakness might appear as a large deficiency in his power of using his equipment. It may be, too, that any extreme degree of training, as in music or mathematics, might determine in the offspring the line of least resistance for the movement of the faculties. Perhaps Richard Roe would find mathematics easier if his father had devoted his life to exercise of that kind. But we are not sure that this is so.

One more element, likewise of doubtful value, must be added to the inventory of Richard Roe. This is the element of pre-natal influence on the part of the mother.

In the process of evolution, the development of the female has brought her to be more the protector and helper of the young. She gives to her progeny not only her share of its heredity, but she becomes more and more a factor in its environment.

In the mammalia, the little egg is retained long in the body, and fed not with food yolk, but with the mother's blood. The "gate of gifts" is not really closed with the process of fertilization as it is in the lower forms. If the help of favorable environment can be counted as a gift, this gate is not closed at birth or so long as the influence of the mother remains. By the growth of the human family, the gift of environment becomes a life long influence. The father as well as the mother becomes a part of it.

It has long been a matter of common belief that among mammals, a special formative influence is exerted by the mother in the period between conception and birth. The patriarch Jacob is reputed to have made a thrifty use of this influence in his relation to the herds of his father-in-law Laban. This belief is part of the folk-lore of almost every intelligent race of men. In the verse of Carmen Silva, that gentle woman whom kind nature made a poet, and cruel fortune a queen, we find these words in the mouth of a Roumanian peasant woman.

> "My little child is lying in the grass,
> His face is covered with the blades of grass,
> While I did bear the child, I ever watched
> The reaper work, that it might love the harvests."

In the current literature of hysterical ethics, we find all sorts of exhortations to mothers, to do this and not to do that—to cherish this and avoid that, on account of its supposed effect on the coming progeny. Long lists of cases have been reported, illustrating the law of pre-natal influences. Most of these records serve only to induce scepticism. Many of these are mere coincidences, some are unverifiable, some grossly impossible, and some read like the certificates of patent medicines. There is an evident desire to make a case rather than to tell the truth. The whole matter is much in need of serious study.

Dr. Weismann ridicules the whole matter and believes that all forms of mother's marks, pre-natal influences and the like are relics of mediæval superstition. Other authorities, perhaps of equal rank, as Prof. Henry F. Osborne, believe that these supposed influences exist, and are occasionally made evident. Doubtless most of the current stories are products of self-deception or plain lying. Probably the period of gestation is too short to produce far reaching changes in hereditary endowments. On the other hand, doubt and ridicule are not argument, and there may be some reality in influences in which the world has so long believed. The potentialities with which Richard Roe is endowed at birth make up the architect's plan on which his life is to be built. The plan admits of much play for deviation. Every wind that blows will change it a little. These elements themselves are of varied character. They do not belong together, nor are they held in place by any "ego" except that made by the cell alliance on which they depend. Some of them the experiences of life will tend to reduce or destroy. Some of them will be systematically fostered or checked by those who determine Richard Roe's early environment. The final details will be beyond prediction. We may be sure that the stream will not rise much above its potential fountain. Richard Roe will have no powers far beyond those potential in his ancestors. But who can tell what powers have remained latent in these ancestors? It takes a series of peculiar conditions to bring any group of qualities into general notice. Those men who are famous in spite of an unknown ancestry are not necessarily very different from this ancestry. Fame is a jutting craig, which may project from a very low mountain. Far higher elevations may not catch the eye if their outline is not unusual. Even under a plebeian name by which "Fate tried to conceal him" Richard Roe may receive a noble heritage. Doubtless it may be passed on to the next generation, not the less noble because it has not been exposed to the distortions of fame.

EVISCERATION OF THE EYEBALL. PERMANENT INSERTION OF A GLASS GLOBE IN THE PLACE OF THE VITREOUS BODY.

By A. H. VOORHIES, M. D., San Francisco, Cal.

(Read before the Medico-Chirurgical Society.)

This novel procedure was first employed by Mule, of London, and has since been practiced by others, and in the absence of unfavorable reports of those cases under observation, it may be considered a safe operation.

This lady who has kindly consented to appear here to-night was referred to me by Dr. McDonald of Virginia City. The left eye was injured twenty-five years ago by having a steel pen thrust through the center of the cornea, resulting in a large opacity equal to more than one-half of the corneal area, incarcerating a portion of the iris, thereby causing a firm synechia. For many years the eye gave no trouble, but for more than ten years it has been subject to occasional attacks, characterized by pain, redness and lachrymation, which would last from a few days to as many weeks. Notwithstanding these recurring spells which would give so much distress to the patient, there was no change from the normal size of the eye; in other words, no tendency to atrophy. Perception of light was lost a few weeks after the receipt of injury. For the past three years there has been an occasional evidence of sympathetic irritation of the other eye, and now for the past twelve months the functional disturbance has been on the increase so that now there is intolerance of light, coupled with immediate fatigue on endeavoring to use the eye.

This operation should be done under a general anæsthetic in the most of instances, yet there is no reason why it should not be undertaken with cocaine alone, provided the subject be of mature years and possessed of much fortitude. Liberal use of antiseptics having been employed in preparing the eye, the operation is commenced just as if an ordinary enucleation was in contemplation. The speculum placed and held firmly by the thumb screw so there can be no yielding on the part of the rings, steel pins are introduced as seen in Fig. 1, taking a small stitch in conjunctiva and sclera. The conjunctiva is lifted by means of forceps and a snip is made as close to the cornea as possible and into this opening one blade of Weckers' iris scissors is slipped and then by rapid circular movement of the hand the conjunctiva is evenly and neatly severed from its corneal attachment. This membrane is then dissected back in the direction of the equator until a circular line, almost to the insertion of the muscles, is reached. *The muscles are not to be cut.* With Beers' knife the front of the eye is shaved off at a point midway between the limbus and insertion of iris. At this moment the whole interocular contents come pressing forward, the iris is seized with forceps and gently pulled from its peripheral attachment, followed by lens and probably much vitreous. Should the vitreous not show tendency to gush out, this may be assisted by means of slight pressure on globe. A small strong stick with a sponge secured to one end is introduced into the scleral cavity and the remaining contents wiped out by a rotary movement which is so manipulated as to bring out the ciliary processes, retina and choroid completely wound around the swab. This rotatory motion is of the greatest importance, for thereby torsion is practiced on the central artery and hemorrhage is almost instantly arrested. The glass globe is now deposited within the scleral cavity by means of the little contrivance suggested by Dr.

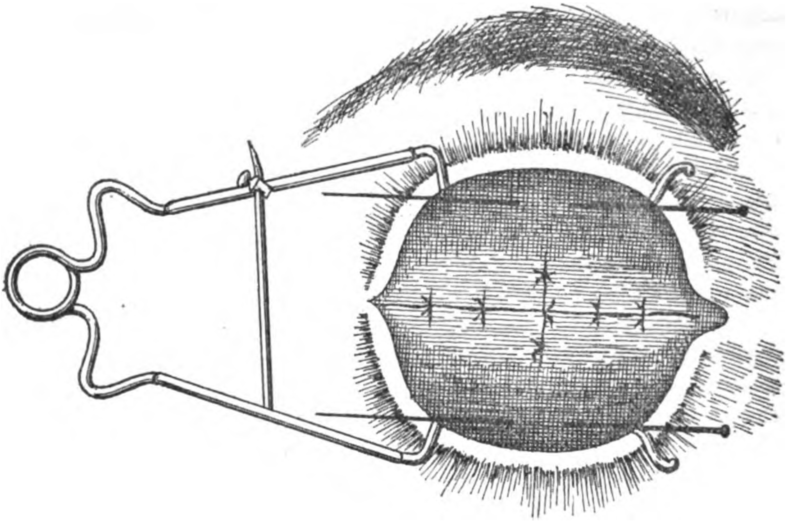
FIGURE 1.

Fox, and of which you have a good representation in the cut Fig. 2. The glass globe has a diameter greater than the greatest length of the window which has been made for its introduction, so a vertical cut will have to be made of sufficient length to allow its insertion. The scleral lips are approximated, and from three to five sutures are taken so as to completely close the opening. The conjunctiva is then treated in the same manner, so you have two sets of sutures—these made with fine black silk thread. The eye is now washed out with a hot borac solution, after which a pad of absorbent cotton is placed on each eye, these to be retained by a few rounds of a flannel bandage, this not to be disturbed until the end of two days. Dressings are now made once or more times during the day—always using the borac solution, when by the end of the sixth day all reaction has disappeared and the patient is feeling quite well and comfortable. I am in no hurry to remove the sutures, but, on inspection about the seventh or eighth day, if some of the stitches are found to be loose, they are gently removed while the others are allowed to remain until healing is complete and all the tenderness gone, which will bring up the treatment to the twelfth or fourteenth day. The œdema of lids begins to pass away about the end of the fourth day, and by the twentieth the conjunctiva over stump is quite clear again, when the artificial eye may be worn for several hours during each day.

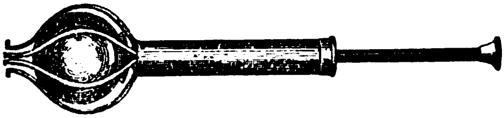

FIGURE 2.

Remarks.—The steps of the author, Dr. Mule, and also the description of procedure recently given by Dr. Webster Fox, of Philadelphia, who has had large experience, were followed in my first case with this departure: I did not separate the muscles from their scleral attachments. After this experiment I sought to escape the two embarrassing features incurred in the operation, namely, the great retraction of the scleral sack which takes place immediately after evisceration is accomplished, and the sharp hemorrhage from the central artery after the use of the scoop. To meet the first difficulty it occurred to me to use the long steel pins as shown in figure 1 and the second, I found the use of the sponge swab to answer the purpose through the act of torsion, as mentioned above.

From an observation of only five operations of the kind I am greatly impressed with the results from a surgical standpoint, to say nothing of the supreme satisfaction given the patient to see that the artificial eye has all of the associated movements of the other, and that exceedingly repulsive appearance due to the sunken condition attendant on enucleation has been avoided.

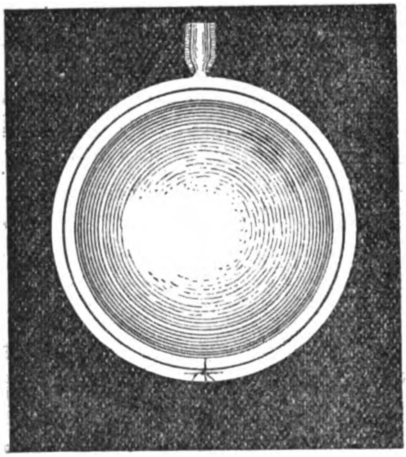

FIG. 3 illustrates the appearance of an eye after having been operated upon by Mule's method.

This operation is admissible in almost every case calling for removal of the eye, and especially so in recent injuries where particles of steel, copper or other foreign substances have entered the globe, for in evisceration the offending matter is removed with the natural contents of the eye, thus leaving the sclera and nerve head healthy in every particular. About 90 per cent of the cases requiring enucleation are done with the view of escaping sympathetic inflammation to the other eye, and since it is known that this particular trouble follows injury or disease of the cornea, iris, ciliary processes, choroid and retina, and all these structures being removed in this operation is the chief justification offered for this new departure. The question of appearance is one of great importance to the wearer of an artificial eye, and very naturally such should be the case as instinct suggests to all to make the most agreeable appearance possible. The serious consideration in this whole question is, will the locking up of a foreign substance as a glass ball within the cavity of the eye continue to menace the safety of the other eye, as was done by the previous condition of things? Those who have observed the results of the operation for more than two years fail to make an unfavorable report in a single instance. We are asked as to the final destiny of the incarcerated ball; of course, this we cannot speak of at present, as sufficient length of time has not elapsed in the observation of such cases. It is known that artificial eyes last only a few years, but it must be remembered that they are made of more soluble material, and they are subject to constant friction from the lids and also are acted on by the secretions which have a most dissolving influence, so they could not be expected to last very long—while the glass globe which is made of flint glass is completely shut up within the comparatively dry sclera and not subject to the wearing action of friction and dissolving fluids, may safely be expected to last during the lifetime of the wearer.

709 Sutter street.

AN INTERESTING CASE OF EPITHELIOMA OF THE ŒSOPHAGUS.

By H. B. A. KUGELER, M. D.

(Read before the San Francisco County Medical Society, February 11, 1896.)

Mr. E., 53 years, German, blacksmith. Family history good. Personal history: had never been sick before in his life, no venereal disease; had been a heavy drinker and smoker. Been married 25 years, no children. Consulted me on November 11, 1895, complaining of hoarseness and shortness of breath on exertion. Was a very powerful man over 6 feet in height. Had noticed loss of weight amounting to about 20 pounds which he ascribed to loss of appetite. Trouble began a month previous, claimed he had caught cold. Examination of chest revealed nothing. There was no swelling or tenderness about the throat. Pharynx and larynx congested but no tumor visible on laryngoscopic examination.

The diagnosis was laryngitis. Gave ℞. Quin. sulph. 0.3, Pulv. Opii. 0.03, caps. no. vj. Came next day, said he had had some difficulty in swallowing them but managed to get them down with slight effort. Said that occasionally had trouble with his food; as a usual thing it went down but now and then he had to make two or three attempts before it would go. The main trouble was the dyspnœa which was quite severe. I decided that there must be a malignant, possibly a syphilitic, growth in the larynx or trachea, so put him on mercurial inunctions and iodide of potash internally, of the latter 10 drops of a saturate solution three times a day, increasing rapidly to 25 drops. At the end of two weeks, there being no improvement, I took him to Dr. Hopkins who found paralysis of the entire left side of the larynx. The slight impairment in deglutition was ascribed to a probable paralysis of the pharynx as well, its cause probably syphilis, so treatment was continued, electricity being applied in addition. Patient went from bad to worse. On December 2nd patient was unable to leave house on account of the intense dyspnœa on exertion. December 7th was called in great alarm, found patient sitting on a sofa, head thrown back gasping for breath. Perspiration pouring from every pore, face cyanotic, all the symptoms of tracheal obstruction. Attack soon passed off, after having lasted about an hour. Patient was seen that evening by Dr. Morse, who suggested that it might be a deep-seated aneurism. The only thing to be done was tracheotomy in case of another such attack. Three days later, December 20th, was again called; found patient in a worse condition than on the previous occasion. Hastily summoning Dr. Berndt, I performed tracheotomy; the tube did not seem to reach the point of obstruction and after about a dozen gasps the patient died.

The autopsy was performed the next day. The chest was opened and a thorough search revealed no trace of aneurism or mediastinal tumor. Trachea opened, appeared free. Larynx, congested, left side flabby. An incision was made transversely below the hyoid bone and an attempt made to remove the larynx. In doing so, I felt a hard mass behind the larynx and against the spinal column from which it was easily detachable. It extended from the pharynx as far down as the sternoclavicular junction where there was quite a nodule on the right side. Entire mass removed, including larynx and trachea. The growth involved only the posterior wall of the œsophagus whose lumen was large enough to readily transmit my index finger. Microscopical examination showed epithelioma.

Referring to the literature at hand, I can nowhere find a reference to a case where there was such intense dyspnœa to the exclusion of all other symptoms. Albert says that the diagnosis of cancer of the œsophagus is made by the presence of the stricture of age and general condition of patient—pain at night, vile smelling vomit, slight hemorrhages. If the growth is in the neck, the symptoms are the same. *A tumor is very rarely demonstrable.* He quotes from Ziemssen that occasionally a unilateral paralysis of the recurrent laryngeal may be present. Struempel mentions a number of cases of extensive secondary cancer of the liver, of gangrene of the lungs, in which the primary affection was an epithelioma of the œsophagus which ran its course without producing any symptoms, hence never diagnosed. He also mentions the not infrequent occurrence of lesion of the recurrent laryngeal with paralysis of the vocal cords.

An interesting controversy is brought out in this connection and that is as to the most frequent seat of cancer of the œsophagus. Albert says that it is incomparably less frequent in the neck than in the chest. Mackenzie claimed that the upper third is the most frequent seat, also Gross; but German statistics are diametrically opposed to this. Albert says that among the large number that have occurred at his clinic only *three* were in the neck.

Ziegler takes the same view. Fagge says that the most frequent position is often stated to be the middle of the tube, opposite the bifurcation of the trachea, less frequent in the upper portion. This is according to the views of Wilks, Rindfleish and Klebs.

Rokitansky asserted that the upper part is the most frequent seat, the lowest the rarest. Foerster, Moxon, Payne and Coats say the commonest seat is the lowest third. This is confirmed by careful analysis of Petri and Zenker. In 58 cases 4 were in the upper, 14 in the middle and 24 in the lower third. The other 16 were in the middle and adjacent parts. These are the disturbing elements and affect the classification of statistics. In 18 cases of Dr. Moore, of St. Bartholomew's Hospital, 7 were in the lower third, 5 in the middle.

Struempel also holds that most cancers have their seat in the lower and middle thirds; in the upper third, they are very much rarer. Deaths result, according to the authorities, from inanition due to the stricture, perforation into neighboring organs, purulent mediastinitis, pleuritis, pericarditis, pneumonia, gangrene of the lungs from aspiration after perforation of the trachea, or from perforation of a large blood vessel—the easiest death.

The interesting points about this case are the intense, rapidly increasing and finally fatal dyspnœa, the short duration of active symptoms, only two months before the fatal issue, and the size of the tumor, which was 3½ inches long, by 2 inches broad and one inch thick.

LESSONS FROM PERFORATING GASTRIC ULCER.

By ERNEST HALL, M. D., L. R. C. P. Edin.
Fellow of the British Gynæcological Society, etc. Victoria, B. C.

(Read before the Victoria Medical Chirurgical Society.)

The history of the following case is presented not only for the purpose of bringing before your thoughts one of the most fatal conditions which we are called upon to treat, but also to invoke discussion, and to obtain your opinion upon (1) the limitations of opium administration in abdominal disease, and (2) the conditions which justify abdominal section primarily as a means of diagnosis.

Miss S., aged 20, single; no cardiac, no pulmonary trouble; for two years has suffered somewhat from anæmia and constipation, though she has not been confined to the house. She took a few Bland's pills, but insisting that the doctor's medicine did her no good, she resorted to various blood purifiers with no better results than that obtained from her consultants. She has not been subject to vomiting, nor has she ever ejected blood or "grounds." At times had a ravenous appetite; menstruation regular, last period scanty and painful; for a few weeks has complained of pain in left side which was relieved upon lying down. No pain about the shoulders or in the region of the stomach.

Saw patient at midnight; the day previous she was brighter than usual, and accompanied her father to the city (three miles) and returned at 6 P. M. Enjoyed her tea, eating heartily of Christmas cake. About an hour afterwards, she vomited but without blood, and immediately complained of severe pain over hypogastrium. Pulse and temperature were normal; tenderness over abdomen increased toward the stomach, abdominal muscles rigid, percussion normal. Being at this time unable to procure any satisfactory history, and the patient's answers being negative, I was unable to give a positive diagnosis.

A pelvic examination gave satisfactory evidence of virginity, and excluded extra-uterine rupture. So, with vague conceptions of intestinal strangulation, passage of gall stones, gastric rupture, disordered menstrual function, etc., I ordered hot applications to feet and abdomen, and gave as a parting salute, a hypodermic of morphia, requesting to be called early if pain continued. Returned at 8 P. M., found the patient reclining in bed, very anæmic, pulseless, breathing shallow, and complaining of considerable pain in the lower part of the abdomen, which was relieved by withdrawing the urine. The lower part of the abdomen was enlarged and fluctuating, and the extremities cold.

The picture now presented resembled that of intra-abdominal hemorrhages. She was at once ordered to the hospital and put under ether. The pulse became at times perceptible; diagnosis of depleted blood vessels being made. A pint of neutral saline solution was introduced into the circulation, the pulse becoming perceptible and remaining faintly steady throughout the operation. Abdomen was opened in the median line—no blood was found, but some three pints of stomach contents escaped. No peritonitis. After copious irrigation, all the organs were found to be normal, except the stomach, which presented upon the anterior surface, midway between the superior and inferior borders, and directly in the œsophageal line, a clear cut, circular perforation, one third of an inch in diameter, partially concealed by adhesions, which attached the stomach to the anterior abdominal wall, evidently the wreck of nature's effort to perform a cure. This opening was closed by interrupted silk sutures. The abdomen was again flushed and closed. Death followed in an hour.

With a clear cut history on the one hand, and definite symptoms on the other, diagnosis, even in abdominal disease, may not be difficult, but with the indefiniteness which characterizes many histories, and with symptoms similar to those presented in this case, I can conceive the possibility of an occasional blunder. When called to such cases we are expected to know the field, and in the presence of such symptoms as vomiting, pain and shock, we should accurately determine the *condition*, before turning our attention elsewhere. The expectant treatment here is but ignorance fooling with death, and the use of the favorite hypodermic before the diagnosis is definitely determined, is a course not to be commended in such cases of indecision where there remains doubt as to the precise nature of the trouble.

Cases which present sufficient pain to tempt the sympathetic attendant to exhibit opiates—just these cases are the ones in which opiates prove the most dangerous. We too, often require the intelligent co-operation of the patient and all the assistance that is active and reflex. Mechanism can aid us in the solution of some of the pathological problems that confront us. It is the wise physician who withholds the soothing draught, who refuses to stupefy nature's sentinels, that he may be better able to detect any variation and to closely watch the progress of disease; that even through suffering he may carry his patient back to health. Let us not befog the danger signals till the bridge has been repaired. How often have I heard Joseph Price say that it would be better for abdominal and gynæcological practice if opium and its preparations were banished from the pharmacopœia. But how slow we are to learn!

What are we to do in the presence of such a problem as the one under consideration? We must not forget the lesson of mortality tables, but with clean hands (supposing the training of the attendant has been sufficient to justify the procedure) prepare at once to examine within the peritoneal cavity. The occurrence of finding conditions, the treatment of which cannot be facilitated by manipulation from within, will be extremely rare, and many so-called "exploratory incisions" will become but the first step in some important surgical procedure. I have had to lament the time lost in awaiting a more accurate diagnosis previous to operating. Rarely in the presence of such symptoms can the section be too early; often too late, and better risk an occasional failure than delay the patient's only hope for life.

The modern record of appendicitis has proved the fallacy of placing dependence upon orthodox symptoms. Reliance upon the thermometer as indicating the conditions and progress of abdominal disease has been the cause of frequent failures. One of my teachers, a well-known American authority, has long since banished the instrument from his wards, while another, A. Martin, of Berlin, has a temperature chart attached to each bed. However, in the presence of such variations of practice on the part of our leaders, every one of experience knows that the most dangerous processes are frequently not indicated by an alteration of temperature; and personally I have learned to place little importance upon thermometric readings while dealing with abdominal lesions.

In fact, we have learned that individual symptoms cannot be individualized, that the abdominal index is known only after the observation and widest experience, and that there has yet to arise the prophet who can reliably tabulate the symptoms of intra-peritoneal pathology.

Digital Exploration of the Uterine Cavity before Curetting and other Gynæcological Operations.

DR. ZIEGENSPECK.—Digital exploration of the uterine cavity is of great importance as a diagnostic measure, and its omission may lead to serious errors in the treatment of various diseases. Küstner states that digital exploration is unnecessary in cases of menorrhagia, but he recognizes its importance in metrorrhagia and even mentions a case in which death resulted from the omission of this manœuvre. Having always been in the habit of resorting to digital exploration of the uterine cavity, I have frequently found tumors when there were simply symptoms of menorrhagia, while, on the contrary, I have found only fungous endometritis in cases of metrorrhagia.

Antiseptic rules must be most rigidly observed in such digital exploration. The hands should be as carefully disinfected as for laparotomy, and the uterus, vagina, and external parts should be irrigated with an antiseptic solution before dilating bougies are introduced. I begin the dilatation with these and continue it with laminaria tents, from 8 to 10 millimetres in thickness, after which, if the dilatation is not sufficient to permit of introducing the finger above the internal orifice, I continue dilating with bougies until the requisite degree of dilatation is obtained. I am strenuously opposed to the use of metallic dilators.

Small tumors I extract with Schultze's cutting forceps, an instrument which I regard as being completely harmless, provided it be used under the control of the finger. After extirpation of small tumors, I invariably resort to curetting.—*Medical Week.*

Sections

MEDICINE.

In charge of SAM'L O. L. POTTER, M. D., M. R. C. P.L.

Diphtheria Antitoxin Statistics.—In so varying a disease as diphtheria statistics are exceedingly deceptive, but some of the most authoritative which have appeared during the last year are so remarkable as to challenge incredulity. Professor Welch of the Johns Hopkins Hospital, Baltimore, has collected and analyzed the various reports available. He deals with 7,166 cases from 80 different sources, and shows a general mortality under the antitoxin treatment of only 17.3 per cent against a former mortality of 42 per cent. Tabulating the results according to the time elapsed before treatment was commenced, he shows for 814 cases treated on the first and second days of the disease a mortality of but 5½ per cent; for 531 cases on the third and fourth days 15.2 per cent, and for 286 cases on the fourth day 31.8 per cent. Kossel reports a series of 233 cases treated in the Berlin Hospitals, with a mortality of 23 per cent, including 72 tracheotomies, among which the mortality was 43 per cent. The most instructive feature of his report is the statement that the percentage of recoveries increased very rapidly with the age of the child and the early commencement of the treatment. The recoveries averaged 50 per cent at 1 to 2 years of age, 75 per cent at 3 to 4 years, 83 per cent at 5 to 6 years, 90 per cent at 8 to 9 years, and 100 per cent at 9 to 14 years. They averaged 47 per cent when treated on the 6th day of the disease, 60 per cent on the 5th day, 77 per cent on the 4th day, 87 per cent on the 3rd day, 97 per cent on the 2nd day, and 100 per cent on the 1st day. Professor Baginsky, in a series of 525 cases treated by him at the Empress Frederick Hospital in Berlin, had a mortality of only 15.8 per cent where previously it had been 41. During a temporary interruption of his antitoxin treatment when the supply of serum failed, the mortality among 126 cases rose to 48 per cent, and immediately fell again when the serum treatment was resumed. The latest report from this hospital was read by Professor Virchow at its last Christmas *fete*. Therein he stated that from April to November, 1895, out of 335 diphtheria cases treated with the serum 305 had been cured, and that the diphtheria mortality in the hospital, formerly 43 per cent, had gone down to 9½ per cent under the use of antitoxin. In Munich, VON RANKE had a death-rate of from 42 to 57 per cent from diphtheria in his service during the preceding eight years, and only 17¾ per cent under the antitoxin treatment. In London, GOODALL treated at the Eastern Fever Hospital, a series of 241 cases under 15 years of age, 105 with antitoxin with a mortality of 22.8 per cent, and 136 without antitoxin with a mortality of 33.6 per cent. Of those under 5 years old the mortality with antitoxin was 29.8 per cent, and 44.7 per cent without it. Dr. SIDNEY MARTIN has just published a report covering 70 cases of diphtheria in children of all ages treated by antitoxin in University College Hospital, London, during the year 1895. Of 44 cases admitted from the 1st to the 4th day of disease only 6 died (13.6 per cent), and of 26 admitted from the 5th to the 7th day of disease 11 died (42.3 per cent). BIGGS of New York has treated 500 cases with a mortality of about 16 per cent, while before his use of antitoxin he had a mortality of 46 per cent. An official report of the Imperial German Board of Health quotes 2,228 cases treated with serum in 191 hospitals by 232 physicians during the first three months of 1895. In 1,076 of these, classed as severe, the mortality was 33 per cent, in 336 medium cases it was only 4.2 per cent, and in 749 mild ones 0.8 per cent. According to the days on which treatment was commenced, the mortality was 35.4 per cent for the 5th day, 18.1 for the 4th, 15.5 for the 3rd, 7.4 for the 2nd and 6.9 for the 1st.

Objections to Diphtheria Antitoxin.—HANSEMAN of Berlin, Professor Virchow's assistant, denies that any good results have been obtained from the use of antitoxin in diphtheria, and considers that the serum is by no means harmless but may cause serious complications. GAYTON of the Northwestern Fever Hospital in London, who reported a series of cases, concludes that though the mortality therein was lowered 5 per cent under antitoxin, this fact was due to a less virulent form of the disease rather than to the treatment, and that the remedy does not diminish the tendency to complications, while under its use nephritis has been more common. He sums up his conclusions thus: "Those cases that under the old treatment would probably have died were still fatal under the new, those which might get better recovered in the same proportion, whilst the mild cases improved no more rapidly—indeed quite the contrary." **Lennox Brown** treated two series of 100 each, one with the antitoxin and the other without it, and says that though the former series shows a reduced mortality as compared with the latter one, the reduction is more apparent that real, and that the occurrence of grave complications, as anuria, nephritis and cardiac failure, are increased under the serum treatment. This, however, is not the experience of other observers, and **Martin** of Paris persists in maintaining the infrequency of albuminuria among the cases treated in his clinic with antitoxin, as compared with the pre-serum records thereof. It is quite possible, however, that in some instances the foreign albumen injected with the antitoxin is excreted by the kidneys and gives rise to a spurious albuminuria.

Conclusions as to Antitoxin in Diphtheria.—The following seem to be established facts in this connection. That the immunized serum is far more efficient as a curative agent than any remedy heretofore employed, the general mortality of the disease having been reduced by its use to about 17 per cent from a previous rate of about 42 per cent. That a marked improvement in both the local and general symptoms is usually noticed within 24 to 48 hours after the injection of the serum. That the remedy has decided power to prevent the spreading of the false membrane into the larynx and trachea. That it is powerless to repair damage already done to the tissues by the diphtheria toxins, hence the earlier that the serum is administered the better are its results. That it is decidedly more efficient in the fibrinous form of the disease than in the septic form, and in cases of simple infection than in those of double or mixed infection. That the liability to paralysis and albuminuria is not lessened but is perhaps somewhat increased by this treatment, though genuine nephritis is less frequently seen under its use than in cases treated by other methods. That the serum may cause certain untoward symptoms, as cutaneous eruptions, swellings, etc., but that these are not serious and are not attended with any danger to life. That its injection is very rarely followed by serious local disturbances, as abscess, and probably would never be complicated thereby if the serum were always pure and used with strict aseptic precautions. That recent improvements in the methods of preparation and more definite knowledge as to the dose and manner of employment have made the later reports even more favorable than the earlier ones. At the 1895 meeting of the British Medical Association, Professor Klein made the statement that "the scientific basis for the application of antitoxic serum is as firmly founded and as thoroughly established as the use and application of any known drug."

Local antiseptic treatment of the throat is still insisted on in connection with the serum injection in every case of diphtheria. If thoroughly carried out in the incipiency it may destroy the dangerous streptococci and other microbes, thereby preventing the mixed infection which proves so virulent; if continued throughout the case and during convalescence it will minimize the danger of infecting other persons. In some instances diphtheria bacilli were found present as long as two months after recovery.

Tetanus Antitoxin.—Tetanus was one of the first diseases successfully studied by the bacteriologists, and its antitoxin was the first antitoxin prepared. As human tetanus is a comparatively infrequent disease there are not many statistics available as to its treatment with antitoxic serum, all the cases yet reported numbering less than one hundred. Its previous mortality, as shown by the two largest sets of statistics, covering 2,789 cases, was 88 per cent, and this rate is claimed by Krieger to have been reduced to 20 per cent by the serum treatment. Dr. Marson has reported a series of 38 cases so treated by various physicians, with 25 recoveries, a mortality of 34.2 per cent. In spite of its failure in many instances, the antitoxic serum is unquestionably the most efficient remedy known for this disease. As tetanus is only recognizable by symptoms due to nerve lesions, which symptoms are not manifested until after the nervous system has been damaged by the toxins, an early diagnosis is impossible; and when first seen by the physician the disease has usually advanced too far for the curative action of the remedy to be available. For this reason, and as the immunizing properties of this antitoxin are very potent, it is advised that a preventive inoculation thereof should be given in all cases where infection is possible, such as lacerated wounds soiled with earth or rust, especially when occurring in those tropical countries where the disease is most common. Along with the antitoxin treatment of a case of tetanus the usual remedies should be employed, namely—exercise of the part or the actual cautery if the wound is recent, chloral, chloroform anæsthesia, etc. The actual cautery, or the application of a strong solution of corrosive sublimate with tartaric acid, are the most efficacious means of neutralizing the tetanus germs in the wound.

Tuberculosis Antitoxin has superseded Koch's tuberculin, which was a toxin treatment, in the serum-therapy of tuberculous disease. BOINET immunizes goats with injections of tuberculin, and claims to have used the resulting serum in eight cases of tuberculosis with marked benefit. Professor MARAGLIANO, of Genoa, has treated 82 cases with a serum similarly prepared. He reports that the cases of unmixed infection, with circumscribed foci of disease, slight surrounding consolidation, and but little fever, are distinctly benefited by the treatment and even some are cured thereby; but that those with much bronchopneumonic consolidation or with cavities do not show any great improvement. Dr. PAUL PAQUIN, of St. Louis, has reported upon 22 serious cases of this disease, treated by him in the city hospital with a serum obtained from horses immunized by injection of the toxins of the bacillus tuberculosis. He states that a large percentage of these cases increased in weight from 5 to 16 pounds each during 6 to 8 weeks, and at the same time showed other evidences of general improvement, without the use of tonics or any special diet, only the regular fare of the city hospital or poor-house being available for them. After the lapse of six months the entire 22 were alive, all having improved and more than one-half the number having been discharged from the hospital as well enough to work. Numerous reports from other observers testify to good results obtained with Paquin's serum in the worst cases, *e. g.* knee-joint tuberculosis (Cale), laryngeal tuberculosis (Loeb), and acute pulmonary tuberculosis (Lemen). Dr. Paquin states that he has used the natural blood-serum of horses in 50 cases of tuberculosis, and believes it to have curative value therein, as the animal is naturally immune against the disease, and its serum requires no artificial immunization to give it therapeutic efficacy.

Antiphthisin, the remedy prepared by Dr. Klebs, may be mentioned in this connection, though it is not an antitoxin. It is a derivative of Koch's tuberculin, the germicidal constituents of which it is supposed to possess, separated from the toxic ones. According to Klebs' most recent analysis tuberculin contains (1) *tox-albumins,* precipitated by sodic iodide of bismuth, (2) alkaloids, (3) an *albuminoid* derived from the bodies of the dead bacilli, (4) a *sox-albumin,* precipitated by absolute alcohol after the removal of the toxic ingredients. It is claimed by Klebs that an aqueous solution of this soz-albumin, prepared by him and named *Antiphthisin*, possesses the germicidal and curative properties of tuberculin without any of its toxic effects. With this product he claims to have caused the complete cure of tuberculosis in guinea pigs, and to have obtained 90 per cent of good results (whatever that may mean) for all stages of phthisis in the human subject. He states, however, that it will produce its fullest benefits in the very early stages of the disease, for which stages alone it is recommended as a specific remedy; and that in advanced and complicated cases the prospects for its successful use are less certain. Dr. VON RUCK, who is associated with Professor Klebs, reports as his experience of nearly 100 cases of phthisis treated with this remedy, that it has an unmistakable influence over the fever, that under its use percussion dulness becomes perceptibly less, bronchial and harsh breathing give place to puerile and then vesicular respiration, the lung capacity increases, the cough diminishes, the sputum loses its purulent character and lessens in quantity, while the bacilli therein diminish in number and show marked signs of degeneration. Dr. C. DENISON, of Denver, reports that most of the cases treated by him with antiphthisin gave evidence of its germicidal and healing effects, "in the lessening of the number of germs to the field found, and their degenerative or incomplete forms thrown off when good sized doses were reached, as well as in the clearing up of consolidated or infiltrated tubercular lung tissue." Antiphthisin is prepared by Professor Klebs at the laboratory of the Winyah Sanitarium, Asheville, North Carolina, where he is now located.

[The above articles are excerpts from the articles on ANTITOXINS and TOXINS, in preparation for the next (6th) edition of Potter's Handbook of Materia Medica, Pharmacy and Therapeutics.]

AN illustrated pamphlet on antitoxina, with reports of cases successfully treated by antirox, has been received from Lehn & Fink, New York City.

Greenbush Sanitarium.

If any of our readers are sending patients East for a rest and change, Dr. Henry Z. Pratts' Sanitarium on Greenbush Heights will be found a delightful place to recuperate. It is beautifully situated on the heights overlooking the Hudson River and the City of Albany.

OBSTETRICS.

In charge of D. A. HODGHEAD, A. M., M. D., San Francisco.

The Education of the Student in Practical Midwifery.—The following abstract made by the *Journal of Gynecology* from an article by Dr. Rentoul in the *British Medical Journal* shows how slowly has developed the sciences of midwifery in England, and the present, to put it mildly, rather unflattering condition of the art in England and Germany. May we profit by their mistakes and neglect, and may we not follow their example.

He quotes Sir W. Priestley as saying "that while great advance has been made in public institutions, progress of a like kind has not taken place in private practice. The researches of Dr. Boxall make it clear that there is a large preventable mortality among puerperal patients attended at their own homes, and if this continues it may become a standing reproach to us that women delivered in lying-in hospitals are actually safer than those confined in their own homes, which at one time was quite the reverse."

It is more than a pity that the traditional hatred which some Fellows of the colleges bear to the practice of midwifery should still linger in our General Medical Council. Thousands of mothers and infants have been sacrificed to this unmeaning hatred. In 1738 the Fellows of the Irish College of Physicians ordered that no one practicing midwifery should be granted their diploma. Consequently they made themselves a laughing stock by refusing it to Sir Fielding Ould. In 1765 the Fellows of the Edinburgh College of Physicians ruled that no one could be admitted a Fellow whose "common business it is to practice midwifery," and, further, that if any Fellow practiced any of these "low acts" he was to be degraded. In 1811 the Fellows of the London College of Physicians ordered that no practitioner should be made a Fellow if he practiced midwifery. In 1843, the Fellows of the College of Surgeons of England also ordered that no Fellow would be admitted to the council of the college if he practiced midwifery. On May 2, 1827, the London College of Physicians, in an official document to the Secretary of State to the Home Department, when speaking of midwifery, characterized it as "an art foreign to the habits of gentlemen of enlarged academic education!" No wonder, then, the death-rate in childbirth was enormous. In 1858 the College of Surgeons of England began to grant its single diploma in midwifery and to those who had neither a medical nor surgical qualification.

Fortunately, in 1886, a fresh move was made with the view of placing midwifery upon the same high level as medicine and surgery; from that year it was enacted by the Medical Act that on and after 1887 no one could have his name placed upon the Medical Register unless he had passed a qualifying examination in the three subjects of midwifery, medicine and surgery.

The General Medical Council has so far failed to carry out the true meaning of the Medical Act (1886), because it fails, in reality, to place midwifery on the same level as medicine and surgery. The certificates required by the various examining bodies are more exacting in the study of medicine or surgery by the student during his five years than they are in midwifery.

A study of the mortality statistics of childbirth will not justify our General Medical Council in ignoring the vast importance of a proper training of the student in practical midwifery. In 1893, in England and Wales, of a total of deaths of 569,958 persons, 5,950 were women who died from puerperal fever and the other accidents of childbirth—that is, at least one death in every ninety-five of the total deaths was that of a woman in childbirth. From 1871 to 1893, no fewer than 48,374 mothers died from puerperal fever, and 50,211 from the accidents of childbed in England and Wales. This is a shameful state of affairs. How much higher would these statistics be if they were correct records? The Register-General has expressed constantly his regrets as to the unworthiness of the puerperal mortality returns, while McClintock has said that "one-fourth is not too much to allow for deaths omitted in the registration returns of deaths in childbed."

Duncan has shown that one in every fifteen women in her first confinement dies. Thus the maternal mortality is actually much higher than that following major surgical operations. Yet the General Medical Council seems to refuse to recognize the practical bearing of these fearful statistics. In the same way the death-rate from puerperal fever is very high, and partly because the student has to work up his knowledge in "midwifery, diseases of women and of infants" in six months.

When Dr. Glover brought the subject before the General

Medical Council in 1891, Dr. Athill said: "I experience a feeling akin to shame at having to second so obvious and so necessary an improvement in the training of the student." The requirement is, that the student must have conducted personally only three cases of labor before being admitted to his final examination. Sir W. Foster said that "the regulations of the Council in respect to midwifery were the subject of scoff and satire," while Mr. Wheelhouse said he "regarded it as little short of a reproach to the Council that it should be said to regard three cases as sufficient instruction for a candidate in obstetrics," and "that obstetrics were better taught forty years ago than at present." Dr. Murdock Cameron says: "A chapter of horrors might be written upon mismanagement of labor, and in which only the mystic letters appended to the operators' names protected them from prosecution. If such men bungled their surgical cases in the same way they would soon find themselves in court for malpractice."

The examinations of students in midwifery should have some educational value. But in England the qualifying examinations comprise only a number of paper questions and an oral examination. In Germany, the student, for his final examination, must conduct, on his own responsibility, a confinement before the examiner, and send in a written report the day after. For the next seven days he must visit the patient twice daily, and, if the woman dies, he must make a post-mortem examination and send in a report.

I hope that when this question comes up again it will recommend that the student must himself "personally conduct" at least thirty labors; that he must do so under the "direct supervision" of a registered medical practitioner, and not by himself or with a midwife, and that the name and address of the patient, the date of the confinement, and the name of the supervising practitioner be entered upon his certificate of attendance.

THE Third International Congress of Dermatology will be held in London, August 4th to the 8th, 1896. The American representatives who are announced to take part in the proceedings are Dr. J. C. White, of Boston, Dr. J. Nevins Hyde, of Chicago and Dr. P. Morrill, of New York. Each day's meeting will be preceded by clinical demonstration of cases.

OPHTHALMOLOGY AND OTOLOGY

Under charge of W. F. SOUTHARD, A. M., M. D.

Traumatic Hernia of the Orbital Lachrymal Gland.—Dr. J. Bistis (Constantinople), in *Annals D'Oculistique,* relates a very interesting case of this rare accident. A child one year old was brought to him, having fallen upon his face in a road full of stones. A cut was observed on the left eyelid near the external orbital border. There was considerable œdema and ecchymosis. The skin was intact only near the internal portion; the remainder was a bleeding surface with an almost triangular flap detached from the external third of the orbital border and turned downward. Through the lips of the wound hung, by a sort of pedicle, an oval gray mass. On raising the lids as much as possible the cornea was found intact, and there was no exophthalmos. The gray pendant mass was the orbital lachrymal gland. The prolapsed gland was reduced by suturing the lid in front of it; this was a departure from Dr. G. Haltenhoff's case where the gland was excised. Union took place by first intention; as a result the child has only a slight prominence in this region.

Exophthalmic Goitre with Ocular Lesions.—Mr. Jessop, London, gives a history of three cases accompanied with ocular lesions. The first patient was a married woman, forty years of age, with bilateral proptosis. The thyroid gland was not hypertrophied. Partial tarsorrhophy was performed. Four days later both eyes were ulcerated and the corneas were reduced to Decemet's membrane. There is now stophyloma of both eyes. The second patient, thirty-five years old, had a similar lesion. She died from cerebral disturbances. The third case was a woman, twenty-four years old, having considerable proptosis. It was necessary to enucleate the right eye. The left was subject to recurrent attacks of superficial keratitis.

Mr. Nettleship had seen five cases of exophthalmic goitre with severe lesions of the cornea.

Foreign Bodies in the Eye with Normal Vision.—Mr. Marshall relates the case of a young man who received a severe injury of both eyes during a clinical experiment. Pieces of glass penetrated both eyes. One was enucleated. The vision of the remaining eye increased after removal of several fragments of glass, and an opacity of the lens following a lesion produced by a fragment of glass remained stationary and localized. Through the clear media numerous fragments of glass could be seen in the interior of the eyeball. Vision equal $\frac{1}{5}$ with cylinder of —1 dioptric.

Treatment of Glaucoma with Eserine.—Dr. Cohn at a session of the Medical Society of the District of Breslaw, describes a patient who for fourteen years has successfully combated attacks of glaucoma by daily instillations of eserine. Several of the members present doubted this action of eserine in glaucoma, and on February the 1st the author exhibited the patient to the same society. The omission of an instillation of eserine the day before had produced a characteristic attack of sub-acute glaucoma. Dr. Cohn took the opportunity to describe four other observations where the instillations of eserine, repeated daily for years, had preserved excellent vision and an intact visual field in patients who, without the instillations of this alkaloid, were subject to attacks of glaucoma. In other cases these instillations had for years cured attacks occurring at intervals during which the patient could dispense with the use of eserine. One of the cases of daily instillations was quite interesting in that every emotion produced an attack of glaucoma. Reading, far from provoking them, caused them to disappear. The author attributes this singular action to the contraction of the pupil which accompanies fixation at a short distance. It was also Dr. Cohn's experience that pure solutions of eserine do not produce follicular conjunctivitis. Great care as to cleanliness will preserve such solutions pure for a long time. The solutions used were $\frac{1}{500}$. Iridectomy is only justifiable in cases where the use of myotics will prevent the development of glaucoma, for its results are inferior to those obtained by myotic treatment. The prognosis of operative results is mediocre in cases where its use is indispensable.

This case is of personal interest, as I have a patient under observation who has successfully warded off attacks of glaucoma with eserine for ten years.

Choroidal Tumors.—Dr. Mitralsky, of Prague, Austria, has a valuable paper in the *Archives of Ophthalmology*, which treats on a variety of sarcomatous tumors which differ from those commonly seen, in that they are flat and only develop laterally, and which may involve the entire uveal tract and yet never fill the interior of the eye. He cites several cases illustrating this unusual form of tumor. In one case in two years time the flat sarcoma attained a thickness of 1 mm. and involved the outer portion of the choroid posteriorly. The second in three years and a half attained a thickness of only 1½ mm., and led to involvement of the retina and the formation of several secondary nodules in the anterior portion of the retina.

The Palpebral Form of Spring Catarrh.—This is a disease of the conjunctiva. The palpebral conjunctiva becomes red and swollen presenting a velvety appearance. At times it resembles follecular conjunctivitis and even trachoma. Its characteristics are that it appears in warm weather and lasts until cold weather. There is considerable discomfort, patient sometimes complaining severely. The hypertrophy may be quite marked and persistent. Reading is interfered with in proportion to the discomfort experienced. A stringy mucus, or a pus, is generally observed. Both eyes are affected. With each attack certain changes may be seen in the surface of the conjunctiva. The lesions become more and more pronounced. From the second year the surface usually presents an opaque appearance, as if covered with a thin layer of milk. During the cold season the patient's complaints cease entirely as a rule. Complications have not been observed. The disease is serious on account of its indefinite duration. The disease begins early in life, mostly during childhood. The writer states that the disease can be stopped temporarily or even permanently by a trip to a cooler locality, especially to spots known to be free from hay fever.

Yellow Oxide Ointment.—Dr. S. Holth, of Dranmen, Norway, has made a series of observations on the causes which lead to the decomposition and deterioration of this valuable ointment. He found that light was one of the factors, perhaps the principal one. The examination of ointment-pots showed that almost all of them, whether of milk, white glass, porcelain or earthenware, were transparent to a greater or less degree, and that the celluloid or wooden covers were translucent. Metal covers are not suitable since amalgamation with the oxide of mercury would result wherever the ointment came in contact. He then covered a number of ointment-pots with a layer of black paint, some wholly, some partially. His conclusions were that ointment put up in blackened pots remained unchanged and of a fine yellow color. To oculists this is a very important fact since favorable results are so often delayed by the deterioration of yellow oxide ointment as usually prepared. Dr. H. states that cold cream is the best basis on account of the great proportion of water which it contains. It is objectionable on account of becoming rancid too easily. Vaseline does not mix as readily with the conjunctival secretion as does cold cream. The formula which he advises is as follows:

℞	Hydrargyri oxidi flavi		0.05	0.20
	Lanolini purissimi (Leibreich) destill. filtrat. et aq. coct.	aa		2.50
	Vaselini flavi			5.00

M. D. ad ollam pellucidam cum operculo ligneo nigro.

DERMATOLOGY.

Under the charge of MARTIN REGENSBURGER, M. D.,
Professor of Skin and Venereal Diseases, Post-Graduate School Medical Department University of California; Consultant for Diseases of the Skin to the German Hospital.

Myxœdema and Thyroid Alimentation.—A boy thirteen years old, the son of a drunkard, and who was conceived during an attack of drunkenness, has been afflicted with myxœdema since he was three years old. He has been taking a lobe of the thyroid gland daily for the last nine months. His intellectual torpidity has disappeared. The boy can run up and down stairs and the myxœdematous infiltration has disappeared. His second dentition is complete and he is gaining in weight.—*Soc. Med. des Hop.*, Dec. 28, 1894.

Chafing in Infants.—(Pritchard.)

℞	Acid. salicyl	0.5
	Sub. bismuth nitrate	8.0
	Amylum	6.0
	Ol. rosmarini	30.0

Externally.

Ointment for Burns.—(Starr.)

℞	Ferri perchloridi	3.0
	Petrolat	24.0

Externally.

Apply as soon as possible to a superficial burn or scald and the pain will subside at once. It will also prevent blistering.

Syphilis Acquired in Early Infancy and a Consequent Infantile Condition.—At the Society for Dermatology and Syphilography in Paris, Eudlitz presented a patient, aged 23 years, with all the characteristics of an infantile condition. Small-boned, absolutely beardless, no hair in the axilla or in the pubic region. The genital organs were completely atrophied and the testicles reduced to the size of a small pea. This patient who had been formerly treated by Fournier for severe brain trouble, had acquired syphilis from his mother when he was about two months old. The mother had been infected by a syphilitic child, which she had nursed for the purpose of developing her breasts. This patient who also shows dental changes, well demonstrated the fact that syphilis acquired in early infancy can bring on the same trouble as is brought on by hereditary syphilis.

Ammoniated Collodion for Insect Bites.—

Ammonia	40 drops
Collodion	3.0
Acid salicylic	0.03

Apply several drops to the bite.

Chapped Hands.—

Menthol	0.75
Salol	1.5
Ol. olivar	1.5
Lanolin	45.0

Apply once or twice a day.

Mercury and Iodide of Potassium.—Chibret gives as a result of an experience of nineteen years the following theories about the efficiency of mercury and iodide of potassium, taken mostly from an ophthalmological practice: 1. In syphilis of the eye, mercury *only*, invariably acts, but the iodide never. 2. In general syphilis mercury is almost always efficient by itself and in all syphilitic manifestations. K. I. alone only effects certain symptoms and is not reliable. 3. In general syphilis as well as in syphilis of the eye the result of the mercurial treatment is a support to the diagnosis. 4. Mercury—the specific against syphilis—is at the same time a poison for the organism, especially for the nervous system, consequently syphilis of the nervous system is a very severe disease. 5. K. I. as an antidote to mercury is often indicated in syphilis in order to eliminate the mercury more rapidly. 6. K. I. acts especially upon the lymphatic glands and in rheumatic troubles. 7. Malignant syphilis can only be cured by mercury or combined with the iodine. K. I. acts according to C. only by eliminating the mercury. C. recommends especially injections with soluble salts such as Hg. cyanat. with cocaine. One injection at first is mad e daily, then three times a week. The only bad result from this treatment is the diarrhœa that sometimes follows. C. recommends an interrupted treatment of two to three years' duration. —*La France Med.*, 1894, No. 36.

Antipyrine for Local Anæsthesia of the Bladder.—Pousson recommends a 2- to 4-per cent aquæous solution of antipyrine which should remain in the bladder from 5 to 10 minutes as a local anæsthesia for the purpose of using the cystoscope, the sound and the lithotrite and also for applications of nitrate of silver solution in the bladder.—*Journal Med. de Bordeaux*, May 19, 1895.

Iodvasogen.—Lustikow applied the iodvasogen (vasogen is vaseline impregnated with oxygen) in 15 cases of gonorrhœal epidymitis, in glandular swellings, in five cases of syphilitic angina, in two cases of syphilitic ulcers of the leg, in one case of periostitis of the nasal bone and in one case of scrofuloderma. The remedy proved an excellent substitute for tincture of iodine and has several preferences. The skin was never inflamed; the influence on the deeper seated tissues was very marked, the preparation evaporates rapidly, to which the rapid disappearance of the iodine discoloration gives testimony. It is recommended in both the acute and chronic stage of gonorrhœal epidymitis, in beginning inflammations of the inguinal glands following chancroids, in all glandular swellings, and in syphilitic and tubercular affections of the skin and mucous membrane.—*Monatsheft f. p. Dermat.*, XIX, p. 10, 541. 1894.

Fracture of the Humerus from Tortion.

Dr. G. H. Monks gives the history of two very interesting cases of such a fracture in the *Boston Medical and Surgical Journal*. One of the patients was brought to the City Hospital with delirium tremens, he developed pneumonia from which he died in eight days. An autopsy showed that the fracture was spiral and the shaft was broken in three pieces. The cause of the accident in both cases was the same. Two persons sitting opposite to each other at the table grasp each other's hands and while the elbows rest upon the table each endeavors to push his opponent's down.

GENERAL DEMOGRAPHY AND CLIMATOLOGY.

Under the charge of P. C. REMONDINO, M. D.,
Member of the American Public Health Association, of the American Medical Association, of the State Board of Health of California, and of the Board of Health of the City of San Diego.

California and Consumptives.—While the climate of California is highly favorable for the relief of consumptives, and while the free out-of-door life that the climate affords cannot fail in curing many cases, it must not be forgotten that too many come to California at such stages of the disease that recovery is positively out of the question. Whilst these are not relieved, it should not be forgotten that they often carry with them germs that are highly infectious. We have more than once seen cases of such general tuberculosis that they could not help by their proverbial carelessness, but infect everything they touched. The bright sunshine and highly oxonized air of the Southern coast, and the exceedingly dry air of the interior and of the foothills, are conditions that are unfavorable to bacillary life, but *all* localities are not exposed to sunshine, neither are *all* rooms so situated, but that the bacillus may intrench itself and live on indefinitely. These germs will in turn infect any one presenting a favorable culture ground, be they Californian born or born in the far East. Many people moving to California fail to observe the different possibilities or requirements of the climate, and here live as close a shut-in-door life as they did in the winters in Maine or in Illinois. They carry with them the same habitation and dietetic blunders that made them prone to consumption in their former homes, and by these means and through inheritance they perpetuate a consumptive *tendency* in their children. Even with all our great advantages of a good climate and a pure air, such persons will contract consumption upon the lodgment of the bacillus, and the disease will then run as steady a course as it will elsewhere.

That should teach Californians the need of a closer attendance to all known sanitary means for the prevention of tuberculosis. This applies to our railroads, our public building, and to our homes, and more especially to those localities frequented by or dwelt in by consumptives. The most rigid regulations regarding the disposal of the sputa are here absolutely imperative and should be enforced. No consumptive should be permitted to spit on any floor, sidewalk or street, nor even in the ordinary cuspidors, which are not intended or constructed for any sanitary purpose. Flies light on the latter and carry the infection to the kitchen as well as to the provision stalls and markets. All rooms, bedding, and all articles employed by the consumptive should be *periodically* disinfected, and no person should be permitted to occupy the same room until the disinfection has been effectual.

All invalids are by no means consumptives. From my own observation I do not find that the latter amount to ten per cent of the total number of invalids, as the class is mostly made up of nervous wrecks, victims of the grippe, and the victims of kidney disorder and of overwork. We owe it to them and to ourselves, that we should prevent the spread of consumption by all known means, as otherwise we will share the fate of many European health resorts where the former healthy and hardy native population has in its turn become consumptive.

Wonders of Longevity.—Professional beauties are proverbially longlived. Diana of Poitiers, Comtesse de Breze, lived to the age of sixty-eight; Madame de Recamier reached her seventieth year, whilst the celebrated Ninon de Lenclos lived to the advanced age of ninety, retaining in her advanced years her beauty to that degree that three successive generations of the Sevigné family—the male members of course—were among her most ardent lovers. Brantome mentions many beauties of his own times, frail ones, who carried their personal comliness past the sixties. The historic Hotel Rambouillete of Paris, contains among its curiosities an old Tabby cat that can well be classed as a macrobiotic wonder,—her life having been fully as gallant and as varied as that of the celebrated Ninon, who in the course of her career, numbered cardinals, dukes, nobles, warriors and the most celebrated philosophers among her numerous lovers,—as she is said to have given birth to no less than two hundred kittens of all shades and patterns.

The average life of a cat is about ten years. The accidents peculiar to the Don Juanic career so much enjoyed by cats of both sexes and carried on in the dangerous and treacherous night time, tend greatly to abridge the lives of many amorous felines, so that only those that are raised in a somewhat moral atmosphere can hope to reach the average. A well behaved cat that keeps itself under proper religious subjection, and whose masters or mistresses, see to it that his bacchantic revels are only carried on with circumspection and with proper regard to his physique, may reach the age of twelve or fifteen years, but even here, a certain amount of the laws of longevity must be observed, as the poor cat's senile days are as apt to be saddened by the rheumatic degenerations incident to a careless diet, and live its old age aching and stiff, and partly blind. The particular old Tabby in question seems to have avoided all the ordinary accidents incident to the wailing periods of feline amorousness, as well as she seems to have escaped all the degenerations incident to a too robust diet, as she has already reached her twenty-eighth year in a perfect state of health, the only ravages that time has made being in her teeth, of which she only has four left.

In that cat's numerous progeny—as well as in the evidence exhibited by numerous royal families of Europe who are noted for the great numbers of their progeny—we can clearly see that long life, continued good health, and the highest civilization, are by no means incompatible with profuse child-bearing. The Tabby's last litter of kittens was born in 1892, Tabby herself having first seen the light of day in 1868. It is regretable that we have no precise information as to the habitual diet of this cat, but we are presumed to suppose that beef entered but slightly into her regular diet, and that the bulk of this consisted of poultry, game, fish and milk. Her great age entitles her to the rank of being the "Old Man Parr" of the feline tribe, as she has already more than doubled the average full life of a cat.

A Newly Discovered Cause of Impotence.—Artists, poets, warriors, and statesmen, as well as great lawyers, are born and not made. The same may well apply to physicians, only that the latter can hide their shortcomings with the greatest ease or even at times air their ignorance with the greatest impunity—performances which would be well nigh impossible or safe with the other callings. The late Arséne Houssaye became a poet—or rather was a poet—long before he knew of the technique of poetry, and enjoyed the further distinction of wearing the military medal accorded to the soldiers of the Napoleonic war, although he was not born until after the close of Napoleon's career, having received a lance wound in utero at the hands of a Cossack during the Russian invasion of 1815. Napoleon III, considered this sufficient to entitle him to wear the medal. As above said, Houssaye was a poet before he knew of poetry as a branch of literature, but it seems that those who follow the science of medicine are not all gods of medicine, either at the beginning, the middle, nor at the end of their careers.

We were led into the above channel of thought by reading one of Dr. Stowell's entertaining and instructive editorials in the March *Journal of Practical Medicine*, wherein he relates the interesting case of a physician who stated before a State Medical Society, that upon an examination of seventy-five specimens of water he had discovered diphtheria germs in nearly every instance, "and what was most interesting," adds Dr. Stowell, "he told that many of these germs were dead, others were dying, whilst still others were exceedingly active. The active ones were engaged in fighting the weaker, and instances were numerous where a leg or a portion of the body was missing."

The above relation reminds us of a California physician who was not in the least modest as to his claims as a scientist. In his own imagination he was a Brown-Sequard and a Pasteur. Although a veritable Don Quixote in the medical field, he was as firm as he was conscientious in following up his various vagaries and in making exhibitions of his ignorance. He told of his great discoveries, of his researches and of his physiological and bacteriological experiments at such a rate and to such gullible people, that he actually came to look upon himself as a scientist of the first water, and from the gullible public he even undertook to astonish the profession. On one occasion he related his most recent discovery to a medical friend. He had accidentally made a most important discovery in the causes of impotence and was then searching for an available serum that was to effect a cure of that dread infirmity. It appears that he had drained a quart of seminal fluid from an enlarged testicle, and then amply supplied with material he had undertaken the research. After patiently watching and gazing in the field of his microscope, he one day perceived a deadly and savage microbe dart out and seize an unlucky spermatozoa by the head and decapitate it. Closely observing the field he saw the slaughter of the spermatozoa by the microbes until naught but demolished heads, broken bodies and limbs, filled the field. According to his tale the helpless spermatozoa was as easy a prey to the microbe as the luckless whale is in the California lagoons when attacked by the savage and fierce orca or whalekiller, as described by Scammon. To his wild and disordered imagination the microscopic field must have presented about as ghastly and bloody an appearance as the grassy plains that surrounded the mythical halls of the great Odin of the Scandinavians, where mangled bodies, headless trunks, lopped-off members and crushed and broken armor and splintered weapons strewed the field. Such a genius could not long be at a loss in his search for an available serum that would destroy the spermatozoa-slaughtering microbes and leave the former to stimulate copulation and to procreate the race.

Prolonged Sleep.—The Dutch papers are jubilant in being able to chronicle that Maria Cvetkens, of the village of Stebensworts, has been asleep for the long period of three hundred and forty-one days. The French papers attempt to humble the honest exultation of the Dutch press by informing it that Marguerite Bogenval, of Thenelle, Aisne, in France, has engaged in such a long sleep that it has already lasted seventeen years. Both sleepers are regularly aroused long enough to permit of the taking of nourishment, when overcome by the irrepressible sleep they at once relapse into a sound slumber. Many physicians have visited the Dutch girl, and after an examination they leave perfectly puzzled.

Dr. Zimmermann, of Hanover, who atttended the great King Frederick II in his last illness, related in his works the interesting case of a boy who exhibited the most remarkable brightness of intellect, the more noticeable as he was born of dull and stupid parents, and so bright that he presented a sharp contrast to the average slow intellects of his fellow village boys. On one occasion the boy fell ill and it was discovered that he had a tape-worm. The physician in attendance at once administered a proper vermifuge and the worm was expelled complete. But with the departure of the tape-worm there was also a total departure of all intellectual activity, and the former bright boy relapsed into a state of chronic mental dullness far greater than that exhibited by his fellow-children. The tape-worm had, by the intestinal irritation it induced, furnished the spur for the required mental activity.

In contradistinction to the above case, we have known worms to induce the opposite effects, and have more than once seen children recover greater mental activity after being relieved from their tormentors. Reflex intestinal irritation is often a cause for such phenomena. It is very evident that the Dutch have not their full quota of specialists, as the girl has been permitted to live so long with sphincters intact and a whole uterus and her ovaries. We would suggest to our Dutch confrères the possibilitity of worms being at the bottom of the case and advise some explorations in that direction.

Voracious Appetites.—Poor Carlyle was wont to remark that he was a happy man until he found out that he possessed a stomach. From that day on, that stomach and functional dyspepsia made for Carlyle a life of misery. On the other hand, Prince Bismarck could stow away a dozen hard-boiled eggs, a quart of beer and a quart of champagne, with numberless links of sausage, for a light lunch, besides smoking either cigars or a pipe continuously when not eating. He was wont to say that if the rest of Germany possessed an appetite and a requirement for food equal to his that the country would not produce sufficient food, and that one-half of the population would have to emigrate. Some men are proverbially enormous eaters, but either the mosquito or the spider can discount the boa, the ostrich or man on gastronomic feats. According to Sir John Lubbock, were a man to attempt the comparative capacity of an average spider, he would have to stow away under his belt, at least two oxen, thirteen sheep, a dozen of average-sized porkers and four barrels of fish within the twenty-four hours. Were a man to eat that much he would simply, bulk for bulk, equal the capacity of the spider.

Bismarck observes that to work one must eat and drink, and that his most forcible speeches were made after imbibing a quart of good Moselle and a pint of champagne. Americans would do well to pattern somewhat, and comparatively, after Bismarck, and indulge in less preserved sweets and pastry, and more in beer and ham pie, roast beef. One will become more rheumatic, gouty and generally physically degenerate on sweets than on beer, roast beef or sausages. Our people drink more beer than formerly, and the good results are quite evident. Whilst not altogether agreeing with the Kentucky colonel who defined water as being an article solely to be used in a lavatorial sense, we cannot help but sympathize with Bismarck, who, when pressed to have a law passed for the thorough analyzing of drinking water, replied that water was generally safe enough, but that the greatest care should be exercised toward maintaining the purity of the beer and wine. Our people do not drink enough water, beer nor wine; neither do they eat sufficiently of oils or fats.

Papal Longevity.—Among the two hundred and fifty followers of Saint Peter, nineteen only remained in the pontificate for periods ranging from fifteen to twenty years, and of the whole number only nine went beyond twenty years. Pius IX wore the papal tiara for thirty-two years, this being the longest papal reign on record. Pius IX and two other popes—one of these being Gregory IX who became a centenarian, and that in the barbarous thirteen century—were the only ones out of the great total who passed their eighty-sixth year. The present incumbent, Leo XIII, was born in March, 1810, and has already enjoyed the pontificate for eighteen years, being aged sixty-eight at his ascension. It is related that at this time he was so thin, yellow-skinned and illlooking that Cardinal Franchi being congratulated upon his appointment to the chief secretaryship of State, replied: "The pope is so aged that you need not congratulate me so heartily, as the position may be only for a short period." All of which was true, for in four months from that date the cardinal himself was dead. The pope, however, lived on, and from the yearly improvement that seems to take place in the health and physique of his holiness he may yet live to imitate his predecessor Gregory IX and become a centenarian.

The Corset and Chlorosis.

Meinert has been conducting in Berlin a series of interesting studies which indicate that the proper use of the corset by girls entering the period of puberty is the causal factor in producing chlorosis. The corset displaces the stomach and intestines to such an extent as to interfere with digestion as well as causing irritation of the solar plexus He records; a case where the stomach was displaced two inches below the umbilicus which recovered in eighteen months after stopping the use of corsets. —*Journal of Diagnosis and Climatology.*

From the *Medical Review* we learn that a bill has been introduced by Representative Broderick in the present Congress "to punish as a felony the carnal and unlawful knowing of a female under eighteen years." This is an amendment of the present law which fixes the age at sixteen.—*Medical Record.*

TRANSLATIONS FROM THE FRENCH.

By W. L. ADAMS, M. D., Palo Alto.

A Case of Miliary Tuberculosis Without Fever.—On account of the rarity of cases of miliary tuberculosis that are not accompanied by an elevation of temperature more or less marked, the following case, reported in the *Gazette des Hopitaux*, of January 9th, is of interest.

The patient was a man 56 years of age, who had for two years suffered from a sensation of heaviness in the abdomen, especially after meals; the abdomen had gradually increased in volume; in spite of a good appetite and the absence of any gastro-intestinal derangement, the patient said that he had been losing weight. Some time before entering the hospital he said that he had perspired abundantly at night, but these night-sweats had ceased at time of entry. On examination there was found a slight œdema of the feet, a small amount of fluid in both the abdominal and pleural cavities. Respiration weakened at both apices and at the site of the exudation into the pleural sac. No rales, no other symptoms of note; pulse, 76 per minute and slightly depressible, heart normal.

During his stay in the hospital his condition was satisfactory. He was up several hours daily and assisted in light work about the ward. His temperature varied between 36° and 37° C. His urine was slightly albuminous. On both the sixth and seventh days his pulse was somewhat arythenique, and suddenly he died at the end of the seventh day of his stay in hospital. M. Falknere, the physician in charge, had made the diagnosis of miliary tuberculosis, in spite of the relatively favorable condition of the patient, because the ascites and œdema of the legs could not be accounted for by an hepatic disease, as the liver was of normal dimensions and there was no collateral circulation; and the loss of weight, the former nightsweats, and especially the coincidence of exudation into both pleural and peritoneal cavities argued in favor of acute tuberculosis. At the autopsy the parietal and visceral layers of the peritoneum were found covered with miliary tubercles and there were also patches of adhesive peritonitis. Both apices of lungs contained numerous recent tubercles, and in the right apex, moreover, there was an old nodule of cheesy degeneration that was probably the origin of the outbreak of acute tuberculosis. There was a fatty degeneration of the myocardium—immediate cause of death.

The chief point of interest in the case was the continued absence of fever during the several days preceding death during which he was under observation.

Early Diagnosis of Phthisis.—(Dr. S. Bernheim in *L'Independance Medicale.*) Few questions have been so often studied and so differently interpreted, and to-day more than ever we endeavor to solve this problem, knowing that pulmonary tuberculosis that is recognized at its beginning at a period when few lesions have taken place, can be recovered from, and is recovered from with a relative facility. Unfortunately this early diagnosis has remained difficult in spite of the progress made in biology and bacteriology. Let us see, then, before stating our opinion in the matter, what are on this point the ideas of our best clinicians. For M. Grancher the inspiration which is normally soft, caressing, "resembling the noise of leaves in the forest," becomes harsh, rough, scraping, and sometimes weakened and jerky. The weakening is of less value than the harshness, for it may be due to the obliteration of a bronchial tube, or to a slight adhesion of the pleura; in the same manner jerky inspiration, especially on the left side, has not the same importance as inspiratory harshness. The rudeness or roughness of the inspiratory sound is, then, the chief sign of beginning phthisis. M. Grancher attributes this sound to forming tubercles placed at the opening of the alveoli. We agree on the cause of this symptom, but we declare that the diagnosis is no longer precocious when the lesions have already reached the stage of granulations. For then, together with this sign, one can make out others of importance, such as hemoptysis, dullness and resistance in the subclavicular fossæ, persistent cough, especially in the morning, evening fever, noticeable emaciation, all signs nearly as constant as the inspiratory harshness.

For Professor Dieulafoy, one discovers generally the bacillus of tuberculosis at a period relatively early. In any case the diagnosis can be made by the obscurity of the percussion sound at one of the apices, by the roughness of the respiration which becomes jerky and long, by the detection of dry rales. But we know that if tuberculosis has a preference for the apex of the lung, it can nevertheless localize itself at the base of the lung or at its middle part, and that Koch's bacilli are found at the secondary period or later, that is to say, at a period of softening of tubercular foci. Such cannot be called an early diagnosis.

Barth and Roger attach a great importance to prolonged expiration, with increase of vocal resonance and obscure percussion sounds. But they acknowledge that in this case tubercules are already formed.

Professor Potain found a diagnosis of beginning tuberculosis of the lung on the detection of dullness in the sub-spinous fossa. But though this sign is of importance, yet it may be found in other conditions, and thus loses its diagnostic importance. Such are, in a few words, the principal opinions found in the majority of the classic works in medicine. We believe them quite insufficient, and we know that in spite of these instructions the majority of practitioners are often embarrassed and undecided in their diagnosis of incipient phthisis.

How shall we escape this embarrassment? In my treatise, concerning Pulmonary Phthisis, Clinical and Therapeutical, I have described the first stage or appearance of the disease, thus: One sees languor, paleness of skin and mucous membranes, moral and physical weariness, cough, loss of appetite, troubles with digestion and menstruation, signs that belong as much to chlorosis and anæmia as to phthisis. Nevertheless, there is a difference; a tuberculous patient loses weight from the very beginning of his disease. He loses weight because he vomits his food, because he has diarrhœa,—in a word, because he is suffering from an intoxication by bacilli. This emaciation, these disorders of the entire system, this shock to the organism, may be seen long before the formation of tubercles, immediately after the infection by the bacillus. It is at this time that we must try to make the diagnosis of the disease. Add to these gastric troubles, which must always make the physician suspicious when they are accompanied by fever, there is a sign of which we have often spoken,—the hypertrophy of the spleen, that becomes tender on pressure or even spontaneously. We have found this sign, experimentally, in the majority of animals inoculated with tuberculosis, and later, clinically, in a large number of patients. This hypertrophy, almost constant at the initial period of the disease, may persist or disappear later in the progress of the case.

We attach much less importance to hemoptysis, which always appears after the formation and development of tubercles, and the same for rude or blowing respirations. We are then no longer at the initial period of phthisis which it would be so useful to detect, but the disease is already confirmed and has begun its terrible ravages. Thus, too, for the search of the bacilli in the secretions and normal liquids of the body. Occasionally these micro-organisms are found in the milk or the blood of consumptives; on the other hand these liquids taken from the body of a consumptive and injected into the body of an animal will regularly render it tuberculous. But, unfortunately, this test is of long duration, during which time the disease may make great progress.

The general condition of weakness, the functions of nutrition which diminish and produce languor, the rise of temperature, the nervous and gastric troubles—are they sufficient to diagnose or predict tuberculosis? By no means; all these signs, even the hypertrophy of the spleen, are but symptoms of probability, of great value, doubtless, but not absolute. We must have a more certain proof, and this we have in the *tuberculine* of Koch. In a preceding publication I reported the cases of several wet-nurses whom I inoculated with small quantities of tuberculine (being doubtful of their condition) in order that they should not contaminate the infants confided to their care. Dr. Hutinel has also inoculated infants, of those in charge of the Assistance Publique de Paris, in order to avoid contaminating peasant families with whom they were to be placed. Escherich and Elstein employ the same certain method of diagnosis. But these clinicians only employ the method in their hospital practice, fearing to assume certain responsibilities. Now, we can affirm that infinitesimal doses of tuberculine, hypodermically, are absolutely harmless. Moreover, one has no more right, were it dangerous, to make use of it in the hospital than in private practice.

(Here follow the reports of some cases in which the author has employed this means of diagnosis.)

These cases, with those I have already published, are, of course, not enough to establish an irrevocable law. But we repeat that the injection of tuberculine, made carefully and in small dose (½ of a milligramme), is entirely inoffensive, that it may render unhoped-for services to a patient in the initial stage of phthisis where no lesion is yet to be detected. The patient must submit himself to a regime and treatment that will, nine times out of ten, save him. Moreover, the diagnosis made, the persons living with the patient can take timely precautions to avoid contagion, because it is incontestable that man is the most dangerous vehicle of contagion in phthisis.

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Editorial.

THE AMERICAN MEDICAL ASSOCIATION.

The American Medical Association was organized in 1847 at Philadelphia and elected Dr. Nathanial Chapman of that city President. The first meeting of the Association was held at Baltimore, Maryland, May 2d, 1848. The first California physician to attend a meeting was Dr. Stephen R. Harris. He was in Washington, D. C., May, 1853, and attended the meeting as an invited guest. Dr. O. Harvey, of Placerville, was the first California physician to become a member of the Association, in 1858, the meeting was held at Washington, D. C. In 1860 the Association met at New Haven, Connecticut, and Dr. W. B. Little, San Francisco, attended, being the second California physician to become a member. In 1871 the Association met at San Francisco, when about sixty California physicians became members. Previous to 1871 the influence of the American Medical Association did not extend west of the Rocky Mountains. The year 1871 marked a new era in California's professional life. The American Medical Association is now a power in the whole land; its influence extends from ocean to ocean. California was professionally, previous to 1871, territorial, but has since been in unison with the national professional life. This year the Association is to meet at Atlanta, Georgia, and it is to be hoped that California will be well represented, especially as a Californian, Dr. Cole, is to preside. Dr. Cole is the second Californian who has been honored by the Association. Dr. Thomas M. Logan was the first; he was elected President 1872, a year after the Association met in California. Dr. Cole became a member of the Association in 1871, and had attended several meetings of the Association previous to its meeting in San Francisco in 1894; but with many others he had ceased to be a member but was re-instated. Up to 1882 when the Association ceased to publish its transactions in a yearly volume, but few Californians had contributed to the transactions. Dr. F. W. Hatch and Thomas M. Logan, of Sacramento, contributed articles on the "Climate of California." Since the Association established the *Journal* many of the younger California members have made valuable contributions to its pages.

STATE MEDICAL SOCIETY MEETING.

We wish to remind our readers of the next annual meeting which takes place at Los Angeles, commencing April 21st. We hoped to have given, in this month's JOURNAL, a full synopsis of the work laid out by the various committees, but up to date we have found no one who is able to give any information whatever on this subject. We presume that a programme has been practically settled upon by those in authority, and that in due time the members will receive a copy through the mails. We have, however, just learned that there are to be no evening sessions, the evenings being devoted to jollity and mirth. The fiesta is announced for the same week, thus affording the members an opportunity to combine business and pleasure, according to taste, temperament and desire.

We would also remind our readers that though there are over 2,000 regular physicians registered in this State, but 400 or one-fifth only are members of the State Society. Such a condition of affairs, we believe, cannot be found in any other State. The average attendance upon these meetings have been of late years ridiculously small. An outsider taking notes of the Society's labors might well say that it was evident the members were more interested in log-rolling and wire-pulling for the various offices than in the real business at hand. We can never have a live State Society until the idea of government by cliques and bosses, which is now somewhat prevalent, is dispelled.

As was stated a year ago in this JOURNAL, "we have representatives from every medical school on earth, most of them well educated, earnest, aggressive and progressive practitioners. The character of the papers presented at the meetings of this Society always compare favorably with the papers read at the meetings of the Societies of the older States." The causes, then, for this utter lack of interest taken in our State Medical Society, must rest either upon the medical profession or the State Society. This matter should be carefully inquired into in order that treatment be speedily applied.

If it be true that our State Society has lost the confidence of its members and of the medical profession at large, then, in heaven's name, let something be done to restore this confidence. Harmony is most essential to effective work in any organization, this is especially true of medical associations. The cause, or causes for the present state of affairs should be most carefully considered. If the fault lies with the management then let there be made a radical change. Selfish interests should not be permitted to supersede public good. There must be a oneness of purpose which will compel unity of action. Let not the progress of medical science be hindered by strife among a portion of this Society's members to further the interests of a few individuals in controlling its destinies.

A right royal welcome is assured to those who go to Los Angeles this month. Knowing their fame for hospitality to visitors we can well believe that the occasion will be made memorable to those who attend the meeting.

THE SPITTING HABIT AND SPREAD OF CONSUMPTION.

In England and Wales, according to Dr. W. Murrell, from 50,000 to 60,000 people die annually from consumption; and another 50,000 from other tuberculous diseases. From 1848 to 1880, 1,702,002 deaths were registered due to phthisis, the majority being young adults. No other disease claims an equal number of victims. Its infectious nature being well recognized, every effort should be put forth to minimize its communicability. Among the many means by which this dread disease may be disseminated one of the most prevalent arises from the consumptive's expectorations. This sputa, as bacteriologists have shown us, carries the tubercle bacillus in varying quantities. When dried these germs are taken up by the atmosphere then inhaled by the well and sick. By this means there is no reason to doubt that phthisis is often conveyed directly to individuals. It has been proven beyond a reasonable doubt that these diseased germs are also given off by the consumptive's breath and that husbands have taken it from wives and wives from husbands. We have here a source of infection to which enough attention has not been given. Of all the filthy habits to which a considerable portion of our people are given perhaps the very worst is the spitting habit. No place is too sacred for them to pollute, on the street, on cars, boats, in stores, in our homes we are constantly reminded of the passage of the spitter. Ladies trail their gowns through this filth, bring it into their homes, when having dried, the bacteria are given off with every movement of their garments. That the consumptive may cause a health resort to become a place to be shunned is exemplified in the case of the Riviera. Its climate is most salubrious and when consumptives first went there this disease was an unknown quantity; now it has become as firmly established there as in any consumptive country. The air and soil has become so contaminated that the natives have fallen victims to this disease, the washer-women in particular have been attacked. The Riviera is no longer a health resort but a place to be avoided by weak-lunged persons. Our own beautiful climate has brought thousands of consumptives here for their health. In the southern portion of the State in particular there are evidences already that this disease is spreading to those who have heretofore felt that there was no danger in living among consumptives. In a word may not foci for the spread of phthisis be already established in various towns, due to the contamination of soil and air? If so, how long will it be before these towns will cease to send out alluring advertisements welcoming the consumptive to come and make these places their homes? Not very long we believe after the masses have learned the truth concerning a disease which carries off more persons annually than any other single disease. The danger of dissemination can be greatly minimized by regulating the care of consumptives. Indiscriminate expectoration must not be tolerated. Hotels should have some disinfective fluid to be daily put into the cuspidors about the office and halls, the same method should be carried out in all public buildings. The handkerchief should be used as a rule by every person when it becomes necessary to expectorate. Consumptives should have pieces of cloth or paper which can afterwards be burned. What a travesty this is on our boasted civilization to see signs with these words "no spitting on the floor," meeting us at every turn.

GROWTH OF HARVARD UNIVERSITY.

Ten years ago she had 1,662 students; this year she has 3,600; of this number 2,897 are registered in Cambridge. There are about 1,000 new comers a year; 1,200 live in dormitories, 1,400 in private halls and lodging houses, 1,150 men dine in Memorial Hall. To bring this large number of students into closer relationship with each other and to establish a greater *esprit de corps*, a movement is on foot to form a University Club. Yale University already has a University Club which, in spite of high fees ($15.00 entrance, $30.00 annual dues), embraces about 20 per cent of the seniors and juniors of the academic department, and of the scientific school, seniors, who alone are eligible. The formation of a club at Harvard will be watched with great interest by other Universities, for it is proposed to make every University man eligible to membership.

THE JOURNAL OF EXPERIMENTAL MEDICINE.

This journal is edited by Prof. W. H. Welch, M. D., Johns-Hopkins, and is to be devoted to the development of the science of medicine. Heretofore articles exclusively scientific had to be published in some one of the many medical journals devoted to practical medicine or sent to one of the European scientific journals. Surely the time has arrived when the American medical profession cannot only produce contributors, but also readers of a medical journal exclusively scientific. The editor will be assisted by a staff of editors and a goodly number of collaborators, who will be truly representatives of scientific medicine in the United States and Canada. The contents of the present number are as follows: 1st. Introduction. 2d. Observations Concerning the Bacillus Ærogenes Capsulatus, by William H. Welch and Simon Flexner. 3d. Further Researches on the Closure of the Coronary Arteries, by W. T. Porter. 4th. The Effect of Odors, Irritant Vapors and Mental Work upon the Blood Flow, by T. E. Shields. 5th. Plates I–VII. The Vascular Changes of Tubercular Meningitis, especially the Tuberculous Endarteritis, by Ludvig Hektoen. 6th. Plate VIII. The Production of Diphtheria Toxin, W. H. Park and A. W. Williams. 7th. The Mucin of White Fibrous Connective Tissue, R. H. Chittenden and William J. Gies. 8th. On the Action of

Piperidine and some of its Compounds, Arthur H. Cushny. This commendable and valuable enterprise has our best wishes and warmest recommendation.

OUR REPRESENTATIVES IN CONGRESS.

The Hon. Mr. Loud has introduced a bill relating to second-class mail matter. What Mr. Loud's grievance is against education and the spread of intelligence we do not know, but we make a very loud protest against his or any bill that proposes to cripple the circulation of newspapers, magazines and periodicals. The spread of intelligence is none too rapid now, and if as this bill proposes all "sample copies of newspapers, journals, magazines, periodicals and books or reports of books be excluded from the mails as second-class matter," the growth of national intelligence will receive a most serious check. Mr. Loud cannot probably have studied and appreciated the immense influence that cheap mailing privileges has had upon the intellectual growth of civilized nations, and the struggle that the people have had with the various governments to procure cheap mail service. If we are to have any changes in our mail system, let us have one cent postage for letters and second class mail matter be reduced in proportion. The representatives of the people in Congress should be mindful that legislation must be progressive, not *retrogressive.*

FOURTH ANNUAL SANITARY CONVENTION.

The Fourth Annual Sanitary Convention will be held at Los Angeles at 1 P. M. on April 20th, 1896, under the auspices of the State Board of Health. Short papers on sanitary subjects are desired. There will be an afternoon and evening session, and the transactions will be printed. All persons, in and out of the medical profession, who take an interest in public health matters, are invited to take part. The interest manifested in what California has done in this direction up to the present time justifies an increased confidence in the value of these conventions.

JAMES WILLIAM BLAKE, M. D.

Dr. Blake died at his farm, San Luis Obispo County, December 24th, 1895. He was born in London, England, and came to this State in 1865. He was 51 years at the time of his death, which was quite sudden, having been ill but a few days of pleuro-pneumonia. Dr. Blake first settled in Visalia where he conducted very successfully a drug-store. In 1872 he came to San Francisco and continued the study of medicine at the University of California, graduating in 1874. Since graduating he practiced in this city. Up to a year or two of his death he was a very active practitioner, but finding his health failing from overwork he purchased a farm and spent part of the last years of his life in farming. Dr. Blake was a member of the City and County and State Medical Societies, and was at the time of his death President of the Alumni Association of the Medical Department of the University of California. He also took an active interest in Freemasonry and was past grand-master of King Solomon's Lodge, and member of California Commandery No. 1, Knights Templar. Dr. Blake had many friends in the profession. He left a wife and two sons; one, Dr. Chas. R. Blake, a graduate of the University of California in 1891, was in practice with his father.

REBECCA A. HOWARD, M. D.

Dr. Howard died February 29th, 1896, at her residence, after an illness of a few weeks; she was 68 years of age. Dr. Howard was born in New York. She was a student of medicine for one year in the Boston Lying-In-Hospital and subsequently studied medicine and graduated at the Pennsylvania Medical University, Philadelphia, 1864. This medical college suspended in 1881; the late Dr. Henry Gibbons, Sr., held a chair in this school before coming to California. Dr. Howard came to California in 1864 and was in active practice until within a few weeks of her death. She was the second regularly graduated woman physician to practice medicine in this city; Dr. Elise Pfeiffer-Stone was the first. She was a widow, her husband having been killed in the first battle of Bull Run. She had no relatives on the Pacific Coast except her daughter, Dr. Kate I. Howard, who graduated at the University of California in 1885, and has since been in practice with her mother. From expressions that we have heard on every hand we can assure Dr. Kate Howard that the members of the medical profession generally extend to her their sympathy.

American Academy of Medicine.

The twenty-first annual session of the American Academy will be held on Saturday, May 2nd., and Monday, May 4th, 1896.

A large number of papers on medical and scientific subjects have been promised. It is hoped to make this one of the most interesting sessions of the Academy of Medicine which has ever been held.

The following are the officers: President, Henry M. Hurd, Baltimore; Vice-Presidents, Woods Hutchinson, Des Moines, Ia.; John B. Roberts, Philadelphia; Emma B. Culbertson, Boston; W. F. Southard, San Francisco. Secretary and Treasurer, Charles McIntire, Easton, Penn.; Assistant Secretary, E. M. Green, Easton, Penn.; Committee on Programme, Geo. M. Gould, Philadelphia, with the President and Secretary. Committee of Arrangements for the 1896 Meeting, J. McFadden, Gaston, Atlanta, Georgia.

Statistics of the Human Race.

The seventy-two races inhabiting the world communicate with each other in 3,004 different tongues and confess to about 1,000 religions. The number of men and women is very nearly equal, the average longevity of both sexes being only 38 years, about one third of the population dying before the age of 17. Moreover, according to the most careful computation, only one person in 100,000 of both sexes attains the age of 100 years, and only six to seven in 100 the age of 60. The total population of the earth is estimated at about 1,200,000,000 souls, of whom 35,214,000 die annually, *i. e.*, an average of 98,848 a day, 4,020 an hour and 67 a minute. The annual number of births, on the other hand, is estimated at 36,700,000, *i. e.*, an average of 100,800 a day, 4,200 an hour and 70 a minute.

Generally, taking the entire world, married people live longer than single, and those who have to work hard for their living longer than those who do not, while also the average age of longevity is higher among civilized than uncivilized races. Further, people of large physique live longer than those of small, but those of middle size beat both.

Proceedings of Societies.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

The regular meeting of the San Francisco County Medical Society was held February 11th, 1896, the President Dr. W. Fitch Cheney occupying the chair. The minutes of the last meeting were read, and approved.

Dr. M. P. Hus, graduate of Leyden, Holland, was proposed for membership by Dr. De Marville, and referred to the Committee on Admissions.

The Society balloted for Drs. A. B. Grosse and Dr. R. W. Payne and they were declared to be duly elected members of the Society.

Dr. Emma S. Merritt read a paper on the

DIFFERENTIAL DIAGNOSIS OF DIPHTHERIA.

In opening the discussion, **Dr. Douglass W. Montgomery** said: The method of diagnosis is undoubtedly a good one, but it requires care both on the part of those who prepare the tubes and those who handle and incubate them. Some would think that a negative answer would throw the clinician off his guard, but this objection could be raised against any investigation. The method is a good one to be adopted for several reasons. It is good to know what part of the city contains the most diphtheria; it is good to know whether a case of membraneous sore throat is true diphtheria, and it is good to know that in our city these tubes are prepared by Dr. Spring at the Polyclinic and that a diagnosis can as easily be arrived at here as in New York. These tubes could never be obtained before in this city and it should be known by the physicians.

Dr. W. F. McNutt: No doubt the time has come when we should have better means of positively diagnosing diphtheria. At a meeting of the former Board of Health I tried to persuade the members to establish a laboratory and provide tubes for the physicians. They would gladly have done so, but had no money.

Dr. Abrams: The pioneers in this method were Americans,—two in particular, Drs. Briggs and Beebe,—Europeans followed closely. No reference has been made to-night to the pseudo-bacilli, which have to a certain extent characters of the true bacilli but are not virulent. Before we can certainly say that a bacillus is non-virulent we must have the *animal* experiment as well as *laboratory* experiment.

Dr. Arnold: We must all coincide that any method that has as its aim the lessening of the terrors (and epidemics) of this dread disease, should be looked upon as a great stride in the right direction.

Dr. Barbat: Three years ago I read a paper based on the experiments of Park of New York, who was the first to point out a distinct membraneous sore throat not due to the true bacillus of diphtheria. At that time I exhibited the tubes, and since then have used them in every case of membraneous sore throat. I would certainly suggest that the Board of Health have these tubes ready at all times for physicians, and when they are returned, make the necessary report to the Board. Dr. Park suggested that the swab be applied to the blood serum in the sterilized tube and then reinserted into its own sterilized tube.

Dr. Kuhlman: I am astonished to listen to the orthodox bacteriologist here to-night. There has been considerable discussion lately in the medical journals concerning bacteria so I consider that I am justified in taking it up. It seems strange to me that any one physician whose centers are well developed, as they should be, can follow in the wake of these so-called bug-sharps. We can hardly accept that the bacillus is the cause. Loeffler himself hesitated when he said that they were the cause and did not come boldly forward until eight years ago and to-day he does not hold to it so strongly as he has done,—for investigations since then seem to throw a doubt on the matter. Many of these cases are of mixed infection. Out of 6,511 cases where tubes were sent to the Board of Health in New York, less than 2,000 were proven to be diphtheria,—as a result the board abolished the tube business. In Berlin, according to the *Berlin Medical Wochenschrift* of November and December, 1894, twenty of the leading physicians of Berlin went on record as saying that half the cases were not caused by the bacillus. At a recent London meeting a discussion was had as to which was the virulent bacillus, some said the long, some the short, and some the clubbed and no conclusion was reached. The statistics here in San Francisco are of interest. Three years back, a year from January, 1887 to 1888, there were 35 deaths from diphtheria, 34 from croup. During 1889, when there seemed to be an epidemic over the whole world, as it were, the deaths rose to 105 diphtheria and 77 croup. In 1890 and 1891 there was 812 diphtheria, 143 croup. In 1891–1892 the deaths declined, before the antitoxine arrived.

Dr. Merritt: I did not mention the pseudo-bacilli as the paper was so full. It is news to me that the serum tubes have been abandoned by the Board of Health of New York, for they were in use just lately.

Dr. W. F. McNutt read a paper on

SUB-ACUTE BRIGHT'S DISEASE.

Dr. Krotoszyner: This case is interesting from several points of view. The doctor's explanation of the hydro-peritoneum is good. He has not stated whether ascites was produced by an organic inflammation of the kidney, however. The amount of fluid withdrawn is great. In one case where there was hydronephrosis causing the ascites, I tapped repeatedly, withdrawing large amounts, and finally operated.

Dr. Abrams thought from the symptoms that this case seemed to be due more to portal obstruction. The urine with a specific gravity 1010, light color, and solidifying nearly by heat speaks more for exudation than a transudation.

Dr. Kuhlman: I feel that Dr. McNutt is right, there would not be so much albumen if no nephritis was present. We do not always find elements in the urine to guide us. An acute condition might cause contraction of the kidney, preventing secretion. If an obstruction existed, the fluid would be less in quantity, I should think.

Dr. McNutt: I might state for Dr. Abrams that I had the urine examined several times and found epithelial and granular casts, and there is no question about the diagnosis. It would be curious to find anarsarca of lower extremities and ascites, albumen 1½ p. c., tube casts and light colored urine in a case of portal obstruction. We find in some cases of heart disease, mitral insufficiency, for instance, with obstruction to lungs and right heart, albumen in the urine, and enlargement of liver, but the urine high colored and high specific gravity. It is a very common thing to find porter-colored urine in portal obstruction. In this case there was no obstruction. When he first came to me it was subacute, with ascites and the first time his urine was examined casts were found. If he lives he may have a cirrhotic kidney, with a large amount of urine and a small amount of albumen. My object was not to give the differential diagnosis, etiology or pathology, only to show the large quantity of fluid withdrawn. I believe this shows the advantages and benefit of tapping.

Dr. H. B. A. Kuggler read a paper on and presented the specimen of "Epithelioma of the Æsophagus." This paper is given in full among the original articles in this month's journal.

The President stated that at the next regular meeting there would be an exhibition of a new electrical illuminating apparatus by Dr. P. M. Jones and a paper by Dr. Geo. Franklin Shiels on "Perityphlitis with a Peculiar Pointing of the Abscess."

Under new business, the resolutions as presented at the last regular meeting by Dr. Kuhlman were taken up. Dr. Kuhlman moved that they be adopted, seconded by Dr. John Montgomery. On a vote the motion was lost.

The Secretary read the resignation of Dr. Jas. Simpson.

Dr. Kenyon: I am sorry to hear this from Dr. Simpson His health is indeed poor. I hate to see him dropped.

Dr. Montgomery moved that Dr. Jas. Simpson be declared an honorary member, seconded by Dr. Kenyon and carried.

The President requested the Secretary to inform Dr. Simpson that he was made an honorary member.

Resolutions from the Sacramento Society of Medical Improvement, protesting against a reduction in fees of medical examiners for life insurance companies, were read and adopted.

Dr. McNutt: A reduction would be a disgrace. The physician's responsibility is great. Other officers of the companies are paid handsomely. One concern is said to pay its president $100,000 a year, and one whose president was no longer able to serve, retired him on a pension of $50,000 a year.

The Secretary asked if this bound each member not to make an examination for less than $5.00?

The President said it did.

The Society then adjourned.

In cases of chronic nasal catarrh where the mucous membrane is congested and irritable, a solution of equal parts of distilled extract of witch hazel and water, sprayed in the nose, often does very well, but first the nasal cavities must be well cleaned. —**Hare**, *Charlotte Medical Journal.*

REPORT OF THE STATE BOARD OF HEALTH.

By J. R. LAINE, M. D., Secretary State Board of Health.

DEATHS.—Reports from forty-nine cities, towns, villages and sanitary districts, aggregating a population of seven hundred and twenty-two thousand four hundred and seventy, show a mortality of nine hundred and ten—a death-rate of 1.25 per thousand for February, 1896, or 15.00 per thousand per annum.

There were one hundred and ninety-four deaths from consumption, sixty-nine from pneumonia, twenty-two from bronchitis, eight from congestion of the lungs, three from dysentery, three from cholera infantum, fifty-two from other diseases of the stomach and bowels, nine from diphtheria, five from croup, two from scarlatina, one from measles, one from whooping-cough, fourteen from typhoid fever, two from malarial fevers, four from cerebro-spinal fever, thirty-seven from cancer, three from erysipelas, eighty-seven from diseases of the heart, five from alcoholism, and three hundred and eighty-nine from all other causes, six of which were from la grippe.

PREVAILING DISEASES.—Reports from twenty-seven localities, outside of the larger cities and towns, give forty-eight cases of pneumonia, ninety-nine of bronchitis, forty of pleurisy, twenty-six of congestion of the lungs, ten of diarrhœa, one of dysentery, four of cholera infantum, three of cholera morbus nineteen of diphtheria, ten of croup, seven of scarlatina, twenty-eight of measles, eleven of whooping-cough, one hundred and forty-eight of la grippe, seven of typhoid fever, sixty-seven of malarial fevers, three of cerebro-spinal fever, eleven of erysipelas, eighty-five of rheumatism, eighty-one of neuralgia, one hundred and thirty-one of tonsilitis, and sixty-six of pharyngitis.

Measles were reported epidemic at Calico and Pasadena.

SMALLPOX.—There has been no increase in smallpox in Southern California, and it may be regarded as stamped out. One case was reported from Napa County, about five miles south of Napa City. Due precautions, such as isolation and vaccination, were the means adopted to limit its spread.

MRS. ANNA A. ASPINWALD, a Pittsburg woman, has bequeathed $3,000,000 to the Hospital of the Protestant Episcopal Church, Philadelphia.—*Medical Record.*

SIR HENRY HALFORD, a very interesting medical character in the early portion of this century, was Court Physician to George the III, George the IV, William the IV and Queen Victoria. He never wrote on medical subjects and he never did anything to further the cause of medicine, yet he succeeded in building up one of the most lucrative medical practices of his day. In the eleventh year of his practice his income was $25,000 per annum. In his eighteenth year it was $50,000, where it remained until 1837. These fees will not compare unfavorably with the fees of medical men of equal standing of the present day.

Selections.

Surgical Morals.

BY DAVID W. CHEEVER, M. D., BOSTON, MASS.

An educated layman once said to the writer, "If you undertake an operation and do your part, and anything goes wrong, why should you feel any more responsibility than the carpenter, who does his job and has no more anxiety about it?" Going a step farther, we have the uneducated public, who consider the surgeon a licensed cutter, without care or conscience. That this cannot be the enviable state of mind of the educated surgeon will be familiar to any one of us who exchanges, in his position, the calmness of an assistant for the anxiety of a principal in a capital operation. "Would that this callousness did more generally prevail," is often the wish of the overworked and too sensitive surgeon. "Bad for humanity, but good for us," would be the verdict of all our brethren. This false estimate of the surgeon's indifference may be general, but is almost never true. The architect who swings a great stone noiselessly and safely into its place, the captain on the bridge of a coast-nearing steamer, the locomotive engineer who runs the express,—these are comparative examples of the alertness, the vigilance, the ever-present and wearing anxiety of the surgeon. Watchful of the field of danger beneath his knife, he is also burdened with the whole weight of the chances of life or death to his patient, from his constitutional condition. How much can he stand? and how long can he stand it? These questions are ever present. Is it safer to stop or to go on? are problems as familiar and as unpleasant to the operator's mind as the diagnosis and the decision as to whether he shall begin at all. In the present feverish condition of operative surgery, it may be prudent to ask ourselves, first, what is the object of an operation; second, how should we regulate our conduct in unforeseen contingencies? We may, perhaps, condense the problem into the following simple questions:

When to operate? When not to operate? When to stop? When not to stop?

It has been a mooted question whether the practice of vivisection, even more than ordinary dissection, may not thicken the surgeon's skin and dull his sensibilities. And, again, it can hardly be a disputable assertion that antisepsis and its immunity have rendered exploratory operations, based on a halting diagnosis, more frequent and safer, if not more desirable, than in the past. And yet, in dealing with the great question of the life or death of a human being, what operator of any sensibility can put aside the saying of the Romam philosopher: "*Homo sum: humani nihil a me alienum puto.*"

What is more distressing than a death upon the table? What injures our art more than a fatal operation, which pathology proves to have been useless, or even more, unnecessary?

When to operate?

If we confine our selection of cases to those which clearly come under the cardinal rule for operation, namely, to relieve suffering, or to prolong life, or both, we shall have little difficulty in the choice. Is life imperiled? should be the first question. Can we probably relieve the suffering? the second. But when asked to operate, shall we accept only good risks, and refuse the doubtful or hopless cases?

When *not* to operate?

When to decline is the real difficulty of decision to be met. Do not operate without the full consent of the patient and friends, if possible. See that some responsible party understands what operation you intend to do, and what may be reasonably expected from it.

Do not operate in a state of shock, unless hemorrhage, apnea, or obstruction of the bowels, as in hernia, is going on. If you have time, consider fully the systemic condition of the patient—the integrity of the heart, arteries, kidneys. In a case of no emergency, the age and prospect of life of the patient are to be taken into account. A person of seventy years, having an expectation of life of five or six years, is in a very different category from a youth of sixteen, who has a reasonable expectation of life of sixty years. You would take a risk with the latter which you would not with the former.

Do not operate in glandular infiltrations so extensive as to preclude perfect removal. Do not operate where you cannot remove the whole disease, as in a tuberculous organ, if you excise a part; or a sarcoma of the antrum where you cannot extirpate the sphenoid cells. To these rules we would make two important exceptions:

First.—To relieve agonizing pain operate on any slight chance;

for unless the suffering can be palliated, the patient had better die than live.

Second.—In a "forlorn hope," so called, after you have fairly stated the risk, the patient is entitled to an operation if he wishes, and if he takes the responsibility; but even here you must limit yourself to cases where there is a single, or some, chance of success.

During an operation when must we stop? When the patient fails? Not always. The failure may be due to ether, or even to simple nausea. Pause, stimulate, consider maturely, before abandoning your task.

Stop when you have reached the end of all you can take out, in a malignant tumor, for instance.

Stop in an operation in the abdominal cavity when a glance or touch reveals that the tumor is not removable, and has grown into vital parts. Do not explore it farther, or you will get where you cannot stop.

Stop in an operation on the surface of the body when stopping will not imperil life as much as going on; in syncope, with a pulse at 108°, with sighing respiration, with a colliquative sweat.

When must you *not* stop? When the patient surely will die if you do. Keep on as long as he breathes. It is his only chance. What terrible contingency is this? Such is an operation which has so far displaced and broken up a soft internal tumor as to render death from bleeding or sepsis sure, if any is left. An oozing hemorrhage; a difficult tracheotomy; a crushed skull with a pulse of 40°, and a Cheyne-Stokes respiration; having trephined, we cannot stop until compression is removed and bleeding checked. Extravasation of urine, and a bladder to be drained: if the patient dies in the process, we must drain the bladder.

Not doing all these things, the patient necessarily dies; his only chance lies in their being done.

Surrounded with these terrible chances, the surgeon, like the executioner, raises or depresses his thumb, and the patient lives or dies. Surely there is no responsibility like this!

Such imminence of peril should teach us, first, to be overcareful and wary about getting in so deep that we cannot withdraw, or about meddling with what had better be left alone. Second, not to imperil life to cover our mistakes; we all make them, and the busy surgeon more than others, by a simple arithmetical law. Third, in self-defence to withdraw from an operation, or a case, at once if our advice is not followed. To bear the responsibility we must be absolute masters.—*Boston Medical and Surgical Journal.*

THE directors of the Post-Graduate Medical School and Hospital, New York City, have named a ward in memory of the late Dr. Chas. Carroll Lee, for many years a Professor in the Institution.

THE *Australian Medical Journal* has been amalgamated with the *Intercolonial Quarterly Journal of Medicine and Surgery,* under the title of the *Intercolonial Medical Journal of Australasia,* Stillwell & Co., printers and publishers, 195A Collins St., Melbourne, Australia.

FROM the *Tri-State Medical Journal* we learn that the Missouri State Board of Health is making warfare on incompetent practitioners of medicine. Students coming from schools whose entrance examinations are a farce and expecting to practice in that State may soon find an efficient barrier to the procuring of a license unless they are proved to be duly qualified by examinations. The same journal suggests that if a preliminary education is good for students, it ought to apply as well to professors and suggests that there should be a State examination of all who profess to be professors.

The Deadly Oyster.

In the fifteenth annual report of the New York State Board of Health, recently issued, is an account of an investigation of the typhoid fever epidemic, attributed to infected oysters which were freshened in water contaminated by sewage, at Port Richmond, made by Dr. E. C. Curtis. His opinion is that not only typhoid fever but cholera and diarrhœal diseases may thus be transmitted.—*The Medical Record.*

Balsams in Eye Disease.

Balsam Peru and tolu in the form of 1 to 3 per cent. ointment are useful in ciliary blepharitis, superficial keratitis, corneal opacities, phlyctenular keratoconjunctivitis, superficial corneal ulcerations, deep ulcers with iritis, hypopyon, and other affections. The remedies are well borne, have an antiphlogistic and antiseptic action, and they serve as excellent cicatrizants, especially for the cornea.—G. NORSA in *Medical Record.*

Literary Department.

Under the charge of W. F. McNUTT, M.D., M.R.C.S., Edin., etc.
Professor Principles and Practice of Medicine in the Medical Department
University of California, etc.

AN AMERICAN TEXT-BOOK OF SURGERY FOR PRACTITIONERS AND STUDENTS. By CHARLES M. Burnett, M. D., Phineas S. Connor, M. D., Frederick S. Dennis, M. D., William W. Keen, M. D., Charles B. Nancrede, M. D., Roswell Park, M. D., Lewis S. Pilcher, M. D., Nicholas Senn, M. D., Francis J. Shepard, M. D., Lewis S. Stimson, M. D., William Thompson, M. D., J. Collins Warren, M. D., and William J. White, M. D. Edited by WILLIAM W. KEEN, M. D., LL. D., and WILLIAM J. WHITE, M. D., Ph. D. Second edition, carefully revised. Philadelphia: W. B. Saunders, 925 Walnut Street. 1895. Price, $7.00, cloth; $8.00, sheep; $9.00, half Russian. For sale by subscription only.

When the first edition of this book was published in 1893, it was about the first large book to present the new era in surgery. It, of course, was not perfect, but it represented modern surgery, which the old standard works no longer did, and the old works re-edited only partially did. This second edition finds new surgeries in the field with which it will have to be compared. The editors and their eleven assistants realize this and have not merely issued a new edition, they have rewritten portions and have added considerable new matter to the text; to give their own statement: "It is impossible to enumerate all of the many changes in the text, but among others may be mentioned the effect of modern small arms in military surgery; a new section in acromegaly; the Hartly Krause method of removing the gasserian ganglion; the osteoplastic method of resection of the skull, with a number of additions to operations and methods in endocranial and spinal surgery; in the surgery of the chest, a description of Schede's operation; in the surgery of the digestive tract, Witzell's method of gastrostomy; the use of Murphy's button in intestinal anastomosis; the consideration of retro-peritoneal tumors and castration for enlarged prostate; a chapter on symphyseotomy; Macewen's method of compressing the aorta in amputation at the hip-joint, etc." Students particularly prefer a single volume text-book, and notwithstanding we have such great works as Dennis' system, this will continue to be a favorite college text-book, and it is worthy of the position it occupies. The illustrations have also undergone a revision, some of the old ones have been dropped out, new ones introduced and many have been redrawn, altogether this second edition is a substantial improvement on what was an excellent first edition.

OUTLINES OF PRACTICAL PHYSIOLOGY, being a Manual for the Physiological Laboratory, including Chemical and Experimental Physiology with reference to Practical Medicine. By WILLIAM STIRLING, M. D., Sc. D., Brackenbury Professor of Physiology and Histology in the Owens College, and Professor in Victoria University, Manchester, etc. Third edition, revised and enlarged, with 289 illustrations. Philadelphia: P. Blakiston, Son & Co. 1895. Price, $2.00. For sale by Popular Book Store, 10 Post St., San Francisco.

This is an excellent little book; it is one of the best manuals that the student can procure on this subject. He can obtain from this a good, practical ground work of physiological knowledge. The author has had an extensive experience as a teacher and knows to a nicety the requirements of a medical student. It is amply illustrated, most excellent cuts are given of the apparatus used in the experimental department of physiology.

DIET IN SICKNESS AND IN HEALTH. By MRS. ERNEST HART, formerly student of the Faculty of Medicine of Paris, and of the London School of Medicine for Women. Author of the Micrometric Measurements of the Blood Corpuscles and the Estimation of Hæmoglobin, etc. With an introduction by Sir Henry Thompson, F. R. C. S., M. B., London. 219 pages. London: The Scientific Press. Philadelphia: W. B. Saunders, Walnut St. 1895. For sale by Popular Book Store, 10 Post St., San Francisco.

Within the memory of man the chief practice of the physician in the sick-room was to prescribe medicine and that of the nurse, or wise woman in charge, was to see that the medicine was properly and promptly administered. At present, fortunately for the patient, the physician in many cases is more concerned about the *diet* than about the *medicine* the sick man is to have, and more interested about the culinary qualifications of the nurse as cook, than he is in regard to the dispensing abilities of the druggist. The physician must have more than a theoretical knowledge of the chemistry of digestion and the principles of dietetics, he must make himself familiar with practical kitchen work. As for the nurse, one who is not a good sick-room cook, is of no account whatever. This is a most excellent manual on diet, we not only recommend it to nurses and those who have charge of the sick generally, but to all classes of medical practitioners.

A TEXT-BOOK OF PRACTICAL MEDICINE. Designed for the use of Students and Practitioners of Medicine. By ALFRED L. LOOMIS, M. D., LL. D., Professor of Pathology and Practical Medicine in the Medical Department of the University of the City of New York; Visiting Physician to Bellevue Hospital, etc. Revised and enlarged, with two hundred and seven illustrations and one chromo-lithographic plate. Eleventh edition. 1,134 pages. Price, cloth, $6.00; leather, $7.00. William Wood and Company, publishers, New York. For sale at Popular Book Store, 10 Post St., San Francisco.

Eleven editions in eleven years is the remarkable history of this text-book on the Practice of Medicine. Our readers and the profession at large are familiar with Loomis' book. Professor Loomis kept each of the editions abreast of the times, and was engaged on this edition when he died. He had already revised and re-written much of it and intended that this edition should convey to its readers the result of his life's experience in the study of disease. Professor Loomis was always especially interested in the diseases of the heart and lungs and had himself entirely rewritten the chapter on endocarditis, cardiac fibrosis and cardiac palpitation. "Arrhythmia, tachycardia, and brachycardia have been added to the list of cardiac neuroses. Dysentery has been placed among the infectious diseases, acute infectious jaundice has been added, and the introduction to malarial fever has been brought into accord with the present status of our knowledge. As in the past, especial prominence has been given to the differential diagnosis of diseases, and this forms one of the book's most important features, being valuable alike to student and practitioner." "Drs. Coakley and Fisher have ably performed the tasks assigned to them by Dr. Loomis prior to his last illness." It is safe to say that this edition at least will retain its hold upon the profession; it contains the best and richest thought of the master.

THE PRINCIPLES OF BACTERIOLOGY; a Practical Manual for Students and Physicians. By A. C. ABBOTT, M. D., First Assistant, Laboratory of Hygiene, University of Pennsylvania, Phila. Third edition revised and enlarged, 12mo., 492 pages, with 98 illustrations, of which 17 are colored. Cloth, $2.50. Philadelphia: Lea Bros. & Co., publishers. For sale at Popular Book Store, 10 Post street, San Francisco.

We have already had the pleasure of recommending a previous edition of this excellent manual. The author has been careful in this third edition to incorporate the advances that have been made in bacteriological research since the publication of the second edition. The student cannot do better than to follow the directions so plainly laid down in the text.

Therapeutic Notes.

Europhen as a Topical Remedy.

In a handbook of Local Therapeutics, edited by Dr. Harrison Allen, Dr. Arthur Van Harlingen writes as follows with regard to the therapeutics of this iodine derivative:—"Europhen is a protectorant and alterant. It possesses many of the properties of iodine, while free from odor and poisonous properties. Europhen can be used in the proportion of three parts of the powder to seven of olive oil as an excipient dressing for burns. As a substitute for iodoform, it has been used as an application to ulcers particularly venereal and syphilitic lesions, condylomata, scrofuloderma, lupus, and dermatitis calorica, with success. Europhen seems to have a peculiarly destructive effect upon the staphylococcus pyogenes aureus. Used by insufflation, it is recommended in nasal catarrh in children. It appears to be useful in reducing the hypersecretion following surgical procedures within the nasal chambers. According to Loewenstein it has value in epistaxis due to erosion of the nasal septum. S. Johnston recommends the drug as an insufflation to the surfaces of syphilitic ulcers of the nasal passages." In his Manual of Therapeutics, Dr. A. A. Stevens says: "Europhen closely resembles iodoform in its action, and like the latter, liberates free iodine in the presence of heat and moisture. As it is lighter in weight than iodoform, a given quantity will cover a much larger surface than a similar amount of the older antiseptic. It possesses advantages over iodoform in being free from odor and less toxic. Europhen may be used in the same class as the latter and may be employed in powder or an ointment containing 5 to 10 per cent of the drug."

Parturition.

Dioviburnia (Dios) in teaspoonful doses every hour after parturition is the reliable agent to prevent after pains and hemorrhage. It being the most powerful uterine tonic attainable, having direct action on the uterus, expelling blood clots, closes the uterine sinuses, contracting the womb and preventing subinvolution. In severe cases fluid extract of ergot should be combined one part to four of Dioviburnia. It is the experience of the most progressive practitioners that in all cases where ergot is indicated, its action is very much more efficacious by combining with Dioviburnia in the above proportion.

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Proceedings of Societies.

THE FOURTH ANNUAL SANITARY CONVENTION OF THE STATE OF CALIFORNIA.

This convention was held under the auspices of the State Board of Health at Y. M. C. A. Hall, 209 Broadway, Los Angeles, Cal., April 20, 1896, and was called to order by the President, Dr. C. W. Nutting.

Hon. Frank Rader, Mayor of Los Angeles, who was to have delivered

An Address of Welcome,

being out of the city, Dr. J. H. Davisson was introduced and spoke as follows:

Mr. President and Gentlemen:—You are no doubt disappointed, as I am, at not having the Mayor with us this morning. He has evidently learned that he is liable to be dethroned this week by Her Royal Majesty, the Queen of La Fiesta de Los Angeles, and he has probably taken time by the forelock and taken to the tall timber for safety.

I am somewhat reminded of Eli Perkins and his many occupations and professions when I appear before you, embarrassed, as I am, in the place of our Mayor. Eli said that he had many accomplishments and many occupations, and he had recently been sitting for pictures—sitting as a subject for landscapes and various kinds of pictures, but he said that the most difficult and the most nasty thing he had undertaken to do was to sit to represent a whole drove of cattle. It is so with me in undertaking to represent the Mayor of Los Angeles. I have no aspirations to do so, and, in fact, I shall not. I shall not undertake to represent the Mayor of Los Angeles; but I don't want you to make a misapplication of this incident that I have alluded to and think I am here to represent a whole drove of cattle. I am here to represent the angels, as this is the City of the Angels, as you are aware.

I hope that your stay among us may be pleasant, and that you may incur the favor of Her Majesty, the Queen, and that you may escape the insults of the rioters of Comus, if you know who that is (I do not), and that you will escape being killed by the trolley cars or being run over by an oil wagon.

I shall not undertake to represent the Mayor, or even the City Government, but I am here simply as an humble citizen of this southern metropolis, and it affords me much pleasure, as one of the humble citizens of Los Angeles, to welcome you here on this occasion, hoping that you may see much in our city and vicinity to admire, and that you may leave us with pleasant memories of Los Angeles. On the part of the California State Board of Health I also extend you a cordial welcome.

Address of President Dr. C. W. Nutting, of Etna.

Members of the Sanitary Convention and visitors: A year ago, at the meeting of the Third Sanitary Convention in the State of California, I was called to preside over your deliberations. At that time I indicated that, as had been the custom theretofore, it would be my pleasure, at the time of my retiring from the office, to say a few words to you. This I decided to do simply because those who had preceded me in that office had set such a precedent, not because I felt that I could say anything which would add in any way to your knowledge of sanitary affairs or to your pleasure while in the meeting.

And now I only desire, in a general way, to indicate some of the features that we desire to work out by these gatherings of physicians for the purpose of studying preventive measures for diseases. That, in my opinion, is the great aim and object of all regular physicians. It is well enough, of course, to be able to mitigate in some degree pain and suffering incidental to sickness. It is more noble, it is more attractive, to be able to prevent sickness. All over this broad land of ours medical men have, for a long time, been engaged in the elucidation of the causes that lead to a great many diseases, and as they have been enabled to find out those causes they have, to a greater or less extent, been enabled to prevent some of these diseases; and I believe the time is coming when we will so thoroughly understand all the circumstances and all the surroundings of these contagious diseases, particularly, that, while we may not be able to entirely eradicate them from the experience of human life, we will be able to mitigate them, and we will be able to reduce their ravages to a minimum.

It takes long years of thought, long years of careful study, to understand thoroughly the history of any disease. It has been a good many years since Jenner accidentally discovered the principle of vaccination for the prevention of smallpox; and in that direction, it seems to me, in the direction laid down by him—and that field to-day is being thoroughly cultivated—we may, perhaps, find in those diseases where one attack prevents a future attack, we may, perhaps, find the solution of the prevention of that kind of diseases.

We understand, no men, perhaps, better than physicians, that it is by slow and halting steps that we arrive at scientific conclusions. Many times we will be led astray by false lights, but after a while the sober second thought of the profession will place on a proper basis all of these remedies that are suggested for its consideration.

There is one thing, and particularly, it seems to me, in the last few years, that has made physicians perhaps more sceptical than they naturally would be when any new remedy—and this refers particularly to curative measures—is presented for their consideration. More than once within the last five or six years have we been misled by statements from men high in scientific authority, and we have become incredulous, but, after all, these are simply some of that halting steps by which we will finally arrive at the truth. After these propositions had properly come before the profession and had been properly weighed in the balance and found wanting to a great extent, it simply instigated us to greater efforts in working out these problems; and the profession all over the world are to-day engaged in these problems of sanitary preventive measures which will ultimately redound to the great good of the people.

It sometimes seems strange to the laity that physicians should desire to prevent disease. They cannot understand that as a business proposition. They think that every physician feels just as the man does who runs a store or any kind of financial business; that it would be to the interest of the profession were there more diseases and sickness. But speaking from an experience of twenty years of practice, and from my experience in my association with a great number of physicians, I say candidly that it is the desire of every physician to limit, in so far as possible, the ravages of these diseases.

I don't think it necessary for me to prolong my address. I again thank this convention for the honor it conferred upon me one year ago, and desire to predict that great good will result from the gathering together of the physicians in sanitary conference from year to year in this State. (Applause.)

(Dr. J. H. Davisson takes the chair.)

THE CHAIRMAN: The next thing on the programme is a response by Dr. W. F. McNutt, of San Francisco. (I don't believe the doctor is in the room. I am not sure that he is in town. We will pass that for the present.) The doctor not being present the next in order will be the

Election of Officers.

Dr. W. F. Wiard, of Sacramento, placed in nomination for President for the ensuing year Dr. J. H. Davisson, of Los Angeles, who was elected unanimously.

Dr. C. C. Wadsworth, of San Francisco, was elected Secretary *pro tem.* unanimously, the Secretary being absent.

Dr. P. C. Remondino, of San Diego, was nominated and elected Vice-President unanimously; Dr. Thomas Ross, of Sacramento, was elected Secretary; Dr. C. C. Wadsworth, of San Francisco, was elected Second Vice-President, unanimously.

Drs. J. R. Laine, Thomas Ross and W. F. Wiard, all of Sacramento, were appointed a committee on publication, the President announcing that they were all chosen from Sacramento for geographical reasons.

Adjourned until half-past 1 P. M.

AFTERNOON SESSION.—THE PRESIDENT: Permit me to extend my thanks to the Convention for the honor conferred on me in selecting me to preside over your deliberations for the ensuing year. I cannot convince myself that you again want to hear me make a speech, as you heard me, or some of you did, this morning, and I will not take your time. I shall endeavor, with your co operation, to discharge the duties of this office without default. We will proceed with the programme.

Street Cleaning and Disposal of Garbage

was the title of a paper read by DR. H. L. ORME, of Los Angeles.

HON. ABBOTT KINNEY, of Los Angeles, being called upon by the President to open the discussion, spoke as follows: In this matter of city street cleaning, Dr. Orme has touched upon one point, and merely touched upon it, and that is the abomination that we are subjected to by our unfortunate political methods.

I have recently been reading the very valuable work of Mr. Albert Shaw on Municipal Government on the continent of Europe. It is the second volume that he has published. The first one dealt with the municipal governments in Great Britain. I think that if there is anything that would make an American blush for his country and his institutions, it is the accounts that are given by Mr. Shaw of the methods which prevail in foreign cities. We find that our cities, as a rule, taking them as a class, are forty or fifty years behind the European cities in their sanitary methods. I am really astonished to find the almost universal superiority of European cities, extending even from Buda-pest, in Hungary, clear through to the English cities, over our own. That is a condition of affairs which we ought to cure. I think that the medical men in this country, particularly some of those whom I have known in New York, have done a great deal in this line ; and here we have Dr. Orme in Los Angeles taking up the same subject. That brings up another point in this connection, as showing that it would not be so hard, perhaps, to get a civil service throughout the civil system as it might be supposed; and that is this: that our system of political appointments really shortens the political life of the man who undertakes it. He can only appoint so many men, and for every one he appoints there are nine or ten who are disappointed, and he really thereby organizes a force that kills him at the next election. When you apply this to health matters—to street cleaning and the inspection of foods—I think that any citizen of ordinary common sense would appreciate the great value, the great advantage that would accrue to the city and to the service by having experts, men who, if they were not fitted for it at first, would be obliged to study as apprentices before they were appointed and salaried by the city. If you had a system of that kind for all your health inspectors and plumbing inspectors and others, that they had to pass a technical examination in the particular line to which they aspired, you would gradually accumulate here a force of men who would understand thoroughly their business, and who would be fit to carry on these very delicate and important forms of municipal service.

The financial part of the health service in any community is immense. When you look through the book of Shaw—and I certainly will recommend everybody who is interested in these matters to read that book—you will see what other cities have done. You take an epidemic, for instance, like that in Hamburg, of typhoid fever, and see what it cost that city and its business, how it drove the business and population away and diminished the returns of the landlords and merchants and every one who had any business with the city. It is a thing of financial moment, even if we leave humanity out of consideration altogether; but when you take the next step and look at the humanitarian aspect—the sick children and the sick people, and people who are disabled and prevented from doing their work and labor and become charges more or less upon the city, it gets a momentum which really makes the doctor and the sanitary congress the dominant feature of our interests in this country.

Dr. C. E. Ruggles, of Stockton: Mention was made in the paper of Dr. Orme of the city of New Orleans, in regard to its garbage, as being transported in barges down toward the ocean. I am not here to dispute that proposition, but I am here to say that from personal observation and full knowledge, derived from being on the spot, the city of New Orleans pays $120,000 a year for the cremation of its garbage. New Orleans, as many know, is the dirtiest city in the United States, and is said to be the dirtiest in the world, except Constantinople. We all know, from the formation of the city of New Orleans, that the subject of sewerage cannot be entertained at all, that is to say, in the same light that we look at it here. They have surface sewers. All the liquid portion of it that can be run off runs off in them. Their water-closets, the night soil, etc., as it is called, is kept and collected in hermetically sealed vaults, and is carried by excavators whenever it is necessary. It was my privilege fourteen months ago to be there, and I received, as one of the courtesies of the State Board of Health of Louisiana, the opportunity to examine that system of garbage cremation. They have a series of tanks. In the first place, all the garbage is collected in wagons or carts; it is carried to a certain place, and then it is segregated, so to speak. The tin cans and the bottles, and all those things, are taken apart and kept apart; then the others are put into large tanks, and then that is filled with naphtha, and after it has been thoroughly soaked, so to speak, the naphtha, uniting with all the oleaginous matter in that tank, a small degree of heat is applied to it, and the naphtha separates from the oleaginous matter; then next the burning process, and the dead dogs, horses, etc., are all burned into such a shape that you could mash them together into a fine powder. The object of that, of course, is to separate the oil from the other substance, and that is saved and made, I presume, into cosmetics or something else, soap, etc., and all the rest is made into fertilizers and sold, so that the oily substance and the fertilizers almost pay the expenses of running the concern. But we must agree with Dr. Orme in regard to one thing, and that is the necessity of the consumption by fire. There is no doubt about that.

Dr. Orme: I am very glad that Dr. Ruggles has informed me on that point. I only cited the different methods of disposing of garbage. When I went through New Orleans a good many years ago, it was dumped, and in a great many other towns on the Mississippi river. If Dr. Ruggles read the transactions of the American Public Health Association, he will remember there was a paper there on "The Mississippi River, the Great Sewer," showing the probable effect of millions of tons of garbage that is thrown into the Mississippi river; that it is just a great sewer for all the towns on the river and its tributaries, the Ohio and others. It is a wrong system to put our garbage or any sewerage of any kind into our running streams, or even into our bays or ocean, as they did in San Diego formerly. I will make that correction in my paper. It seems that they have a crematory in New Orleans. It seems that they have an incineration or reduction process, the same as the process practiced in Philadelphia. In the proceedings of the Association it was said that the perfect crematory is yet to be invented. We hope that we have succeeded in getting one of the best in the United States, in the Dixon, here in Los Angeles. The garbage must be cremated.

Yard Sanitation.

Paper read by **Dr. A. E. Regensburger**, of San Francisco. [To appear next month.—Ed.]

Dr. D. B. Van Slyck, of Pasadena: Mr. President and members of the Sanitary Convention, I don't think the paper requires any extended notice. The value of it is self-evident. The importance of air and sunlight in our houses, especially attention to the rear yards of houses, is a matter of a good deal of importance. In large cities where tenements are built back to back without any yards, it is well known that disease prevails to a much greater extent then in those more favorably situated.

In most of the large cities laws are being formulated and attempts are being made to prevent the building of any tenement houses of this sort. I approve fully everything set forth in the paper, and give it my entire commendation. Of course, in some of our smaller cities it is not a matter of so much importance, although it is always important that there be abundance of room in the rear of the house, and that the yards should be kept clean. The health of every community depends to a considerable extent upon that, and I am very glad that a paper of this sort has been presented to our notice, because even in smaller towns the back yards of houses are greatly neglected, and they are often in an exceedingly unsanitary condition, and are a menace to the health of the neighborhood. I think that subject should be brought to the attention of the health officers, and back yards inspected as well as other portions of the town that seem to call for inspection.

Dr. P. C. Remondino, of San Diego: There is one point that I would like to call the attention of the Convention to in regard to these matters, and that is that there should be a law to compel each community to appoint what is called a public scavenger, whose duty it should be to conduct away whatever fetid matter there is about any premises when called upon to do so by any citizen. At San Diego the scavengering is done by a private company, and they only remove the material as often as they are paid for doing it. The result is that a poor family is unable to have the work done, the husband is earning very little, it is impossible for him to pay the fees that are asked by his private scavenger, and the result is that he allows the filthy material to accumulate in his back yard and about his premises until it is positively offensive to the whole neighborhood, and yet when a man is poor you cannot compel him to do it. There is no public scavenger to attend to it, and the private scavenger will not remove it unless he is paid, and the only way to remedy that is to compel each community to have a public scavenger. Our City Board of Health saw the evil that resulted from the private scavenger business, and we undertook to have the city employ scavengers and have them clean up things periodically, or whenever called upon, but the private scavenger association moved in a body upon the City Council, and they defeated us, and the result is that now there are dead cats and everything else lying around some premises. This subject of Dr. Regensburger is a very important one, and one that should be attended by the local boards of health.

Dr. Regensburger: Mr. President and gentlemen, I don't know that I have much to say in the way of closing the discussion, because other gentlemen who have spoken seem to agree with the views that I have presented in my paper. As regards keeping poultry in the rear yards, I think that it ought to be prohibited, as it is a very important point. That poultry have caused diphtheria a great many medical men believe. I had in mind when I spoke of a law being drafted to cover that case, that several years ago in San Francisco, Dr. Keeney, who was then health officer, made an effort to have such a law enacted and put upon our statute books, but somehow or other it fell through and never was enacted. In the larger European cities, and in fact even in the smaller ones, the keeping of poultry in yards is forbidden by law, and if it is forbidden by law there I think that it should justly be forbidden by law in this country. The lives of our American citizens are worth just as much of those in other countries. It is certainly an evil, and one which ought to be remedied, and I am glad to see that the gentlemen who have spoken are in accord with me. I thank you, gentlemen, for your attention.

Dr. Goodfellow, of Arizona, not being present, his paper on "The Sporadic Development of Smallpox" was read by title.

Typhoid Fever from a Financial Standpoint.

Dr. Thomas Ross, of Sacramento, read a paper on this subject which will appear in a subsequent number of the Journal.

Dr. C. W. Nutting, of Etna: Mr. President and gentlemen of the convention, I have never taken the pains to investigate from a financial standpoint the immense cost as stated in Dr. Ross' paper that arises from three or four hundred thousand cases of typhoid fever. As I suggested this morning in my address, it is for the purpose of preventing just such a waste of the energies of the people and just such a waste of time that these conventions meet all over the country to consider the subject of preventive medicine. No one would doubt for an instant but that Dr. Ross has exaggerated in his statement of the figures. I believe that such papers as his will be more apt to appeal to the laity that other more pretentious papers that simply deal scientifically with these subjects. The American is, like almost any other person in the world, natural, and if you want to stir him up to the depths and get away down into his feelings, you want to touch the nerve that runs to his pocketbook, and if you can demonstrate to him positively that it costs a whole lot less to put in motion these sanitary measures than it does to be sick, possibly we will succeed in bringing out the necessary coin to put them into effect. I endorse Dr. Ross' paper, and think his method of presenting the subject is one that will have a lot more effect, perhaps, than papers that deal simply with measures from a scientific standpoint.

Dr. J. Milton Welch, of Los Angeles, made a few remarks which were in the main a criticism on the smallness of the gathering at the convention, and compared the lack of interest in the meeting here to the general interest taken in such matters in Kansas.

Dr. J. R. Laine, of Sacramento: I will say, with reference to the criticism that has been made of the few who turn out to conventions, that these proceedings are printed at the expense of the State, and the well-digested papers that are presented before a body of this kind simply receive the endorsement of the convention at the time, and are then printed and distributed to the medical profession and to the press throughout the State. In that way they reach a large number. In one evening a man may go through the transactions of a meeting of this kind that has lasted through an entire day, perhaps under some inconveniences, by sitting with his cigar in his mouth or his feet before a grate, and he assents to or dissents from the discussions and sentiments that have been expressed. Perhaps there is just as much good done. There is very little good done in this world by ephemeral exuberance of, you may say, passion, or the results of oratory. We calmly act upon anything that we do in a sanitary way in deliberative bodies. So far as the State Board is concerned, it has very generally received all the support that it has deserved. Its actions have been characterized, so far as I know, by great deliberation. Everything has been very well weighed before any official action has been taken. It has not been compelled, to my knowledge, to reverse its decisions or its action. This is an extraordinary occasion. Though I am not a resident of Los Angeles, yet I see very plainly that a great many people are attracted by the festivities that are in contemplation and in progress at the present time. So far as I am personally concerned, I do not regard it as any slight to the State

Board of Health or to any medical gentleman present that there is not a larger attendance. The transactions will be printed and have a wide distribution, and I can assure you that, so far as I have been able to make comparisons, the papers that have been presented to the Sanitary Conventions heretofore compare favorably with those of any other State in the Union, and are complimented very highly, and have been sent for and are being sent for many years after their publication. There is not a month that we do not mail perhaps forty or fifty and sometimes two hundred copies, and we frequently have to say that we have no more copies, that we are out of print. That is the way it goes, and that is the way that good is done. Our State sends to other States for publications, and we digest matters and let it do as much good as it can.

HON. ABBOTT KINNEY: I would like to correct the doctor in one respect. When he said he was from Los Angeles I felt it absolutely necessary for me to say something in regard to one of his statements. He made the statement that he was a stranger in this community, and that he had resided here for two years. That is a complete mistake. We don't recognize any statement of that sort.

DR. WELCH: The gentleman has not come from Kansas.

THE PRESIDENT: I would take the liberty of saying that I don't think Dr. Welsh's statements were misunderstood. We don't take it that they gave any offense. Personally, I think they are all right.

DR. LAINE: Dr. Ross failed, purposely perhaps, to make an estimate of what it cost when a man died. It would largely increase the cost of the sum total.

THE PRESIDENT: That would depend largely upon where he dies, I suppose.

DR. ROSS: The expense of a man's death is inevitable. If he dies prematurely of typhoid fever, it is only the case sooner than it otherwise would, and that is the reason I left funeral expenses out. Talking about funeral expenses, I think that some action ought to be taken to correct an impression among the people about funerals. How often do we see a poor widow, for instance, whose finances have been exhausted by the expenses of the attendance upon a sick child or a sick husband, and when death comes in the family and the funeral expenses come along, how often do we see that poor woman incur an expenditure that it takes her a whole year or more to pay in order to bury her relative decently, as it were. The idea I want to get is that the expense of funerals is out of all proportion. It is money thrown away, and it is a great load on a great number of people. The wealthy can indulge in those luxuries, but the poor try to keep up and do all they can for the dead, and place themselves in a position to incur an indebtedness that it is hard for them to pay. It is a false notion. If we could do anything to correct that false notion, we would be doing good.

Dr. P. C. Remondino, of San Diego: I wish to say something, not in reference to this paper, but in reference to a remark that the doctor made in his closing remarks on a subject foreign to the paper, yet a socialistic question which interests us all, and that is the expense of funerals. There is a canton in Switzerland where everybody is buried alike, rich and poor, and the State pays the expense of the whole thing. Unfortunately, with us there is as much rivalry as to the size and pomp of a funeral as there is at a party, which is all wrong. It would be better if we could have some system by which we could all be buried alike, or cremated.

Facilities for the Treatment of Contagious and Infectious Diseases in the Public Institutions of California.

The President: I received a paper and a letter from Dr. Osborne, regretting that at the last moment the press of business at his institution necessitated his remaining at home and that it would be impossible for him to be here, a pleasure that he had been looking forward to, as he is a man of ability and one who takes a lively interest in these things. He has prepared a very interesting paper, and I don't know but it would be well to read it or have it read. What is the pleasure of the Convention?

Dr. C. E. Ruggles, of Stockton: I will state in regard to this paper that I am familiar with its history, its inception and conception and the reasons why the doctor is not here. Last January, in the discharge of its official duty, the State Board of Health visited the Glen Ellen institution, the Home of the Feeble Minded. We made a very thorough inspection of the institution, and we found one deplorable condition of things, which was the existence of thirty-five cases of tuberculosis, scattered hither and yon all over the institution, without any idea of isolation or segregation. The Board immediately and thoroughly and positively condemned any such condition of things. We were struck almost aback with astonishment to find among four hundred patients thirty-five cases of communicable disease. The superintendent of the institution immediately fell in with the proposition that something must be done. If the State desired to get rid of those four hundred, it was not doing a more successful act than allowing those thirty-five children with tuberculosis to remain where they were. But it could not be done with the approval of the State Board of Health. We communicated with Dr. Osborne in relation to the matter, and I, being familiar with some of the members of the Board of Directors and somewhat acquainted with our Governor, it is determined and understood positively and unequivocally that next month there will be a separate ward constituted. A separate corps of attendants will wait upon those thirty-five children and they never will be allowed to associate with the other three hundred and fifty. The gentleman, unfortunately, is not able to be here. I am very sorry, indeed, because I am satisfied it is a very good paper. Therefore if there be no one to read the paper in his stead, I move that it be read by title and referred to the Committee on Publication. (Motion seconded and carried.)

The Imperative Necessity of Rigid Sanitary Regulations in Southern California.

Dr. P. C. **Remondino**, of San Diego, read a paper. [To appear later.—Ed.]

Dr. Walter Lindley, of Los Angeles: Mr. President, ladies and gentlemen, I am not at all prepared to speak to the subject, not having arrived until the doctor was pretty well through his paper. I believe in kindness, and while we take every precaution and insist on what the doctor speaks of there, I believe at the same time in treating the man or woman who is suffering with a terrible malady with as much consideration as possible, and insinuating as little against his lack of human kindness as possible. I believe that if our literature is written in the manner of argument and not in the manner of denunciation, it will reach these consumptives so that they will really join with us in trying to eradicate the disease. I believe that this disease will be eradicated by the steps which the doctor suggests, but at the same time let us season our arguments and our literature with as much consideration for the unfortunate as we possibly can.

Dr. W. F. Wiard, of Sacramento: I listened with a great deal of interest to the very able paper of Dr. Remondino, and I endorse everything the doctor has said, the remarks which have been construed by Dr. Lindley as a little harsh and cruel included. I want to say what I have said before all the meetings of this Society, that all the kindness in the world will never accomplish anything. I shall never take a tuberculotic into my family under any circumstances whatever, because I consider my family's good health of more importance than any consumptive's necessarily brief existence. Furthermore, I do not believe in allowing—and here I think the strong arm of the law should be brought into requisition—I do not believe in allowing teachers in our public schools who are affected with tuberculosis to retain their positions, or to be allowed to teach there one day after it is understood that the disease is well developed. I do not believe that a preacher should be allowed to preach and associate with his parishioners, as he necessarily must, if he is affected with this disease. I do not believe that it should be allowed by our State. I do not believe the coming here of medical men who are broken down with consumption and practising and associating with the people, as they necessarily must, should be allowed Their work must necessarily go in the direction of broken-down constitutions, of people who, by heredity and association with others, are in poor health and extremely liable to take consumption—to be infected by these germs. It seems as though it was an immense wrong for us to allow these things to go on. We know that in all probability the man who drinks whisky is going to ultimately and in a few years become disabled by it, and we make laws that regulate the sale of that. Now, is it any more out of our jurisdiction, is there anything more wrong about it, to regulate this disease and control it? Shall not we say to these men who are in these vocations where they are necessarily associated with a great many men—isn't it proper that we should say to these men, "You must get out of there. You are exposing this community to a very fatal contagion. We don't want you in there. Let somebody else do that work who is not affected by disease." It seems to me this is a plain proposition, and I sincerely hope that ultimately we will have laws which will regulate these things. Kindness won't do it. I believe my heart is just as tender as that of the majority of practitioners, and I feel sorry for these people who are affected; it is deplorable, but I tell you they have got to stand aside and let somebody else with good health do this work, or we will do an injustice to our community.

Dr. J. R. Laine, of Sacramento: I do not expect to enlighten any one by stating the manner in which the infection will take place. It is generally understood, I believe, that a person can live in intimate relations with another one who is suffering from tuberculosis and yet not contract the disease from him unless they furnish the soil which receives it so that it may develop by breathing bacillus in a dry state, as dry sputum. There are other methods also, particularly among cattle. Cattle that are suffering from tuberculosis have two ways of spreading the disease: one from coughing on the feed and grasses that other cattle graze and feed upon, or by the excreta from the bowels, provided the disease exists in the alimentary canal. This, when it becomes dry, becomes scattered over the feed and may reach the respiratory lining of other animals, or may infect them through the stomach. I do believe that people often contract the disease from others through the food. Children may at the time they may be cutting teeth or at the time they are suffering from some abrasions of the lining of the mouth, if they are nursing or drinking tuberculous milk, they may receive it in that way. The glands about the neck may become enlarged and suppurate and swell, and the bacilli may extend down to the apex of the lungs, and reach the lungs in that way. Then again, as stated by the writer of the paper, a patient may be suffering from a small area of affected tissue, and by swallowing expectoration may infect the alimentary canal, or, again, by respiring their own bacilli that have been dried they may infect a portion of the opposite lung and so carry it on indefinitely. I am not a believer in the easy communicability of tuberculosis by breathing respirations of other persons. It is true that by coughing we create an expulsive effort which, by acting as an atomizer, may expel a portion of sputa containing bacilli, but you must see that it is not easily inhaled by another person until it has become dried, comminuted and scattered about as dust. It is far more dangerous to live in a room that has been occupied by a consumptive patient. There the carpets, or even the floors, if denuded of carpets, or the walls or the furniture, will have a fine dust from the particles of sputa that have not been cared for, and that, when stirred about, may produce the same effect that people sometimes get when cleaning the paper off a wall where a patient had smallpox years before. They then wonder where they got smallpox, and they cannot understand that the bacillus has been retained all this time in some secluded spot and has become displaced and has produced the contagion. I would take the same position with reference to the school teacher that is taken by Dr. Wiard. I don't think we ought to have school teachers who are known to be afflicted with consumption taking care of our young. Putting aside the fact that they may not convey the disease by direct contagion, they must dispose of their sputa, and that sputa will become dry. There is a possibility, there is a grave probability, that the sputum may be dangerous to the young. That being so, let it be once admitted that that is so, we should not have them as teachers, no matter how much sorrow we may feel for their unfortunate condition. The love that we have for the young ones should overcome those sentimental considerations. With reference to the clergyman, he stands in the same condition that almost any other man will. If he can care for his sputum I have no objection to listening to his exhortations. How far the physician may continue his practice in the advanced stage of the disease is a matter that should be partly left to him and partly to those who advise him. I believe that generally physicians take the advice of everybody else but doctors.

Dr. Remondino: With reference to the remarks of my friend Dr. Lindley, I must say that that is a point that has presented itself to me more than once, and very sadly. They are very few of us but have friends who are in that predicament, that are consumptives, and really if there is anything in the world that makes us wish there was a Utopia, that Utopia was something practical, that it was not a mere theory, it is that we have a consumptive friend and we don't know what to advise him to do or what shall be done with him. There is many a poor fellow who becomes consumptive, and if you go to work and shut off his means of earning a livelihood, what shall he do? Is he to go to the poor house? You must give him some means under our civilization, which does not provide for him, of making a living. For instance, here is a girl raised in refinement, belonging to a good family; she is refined in sentiment and feelings. That poor girl, through her attendance at the State Normal School, where she has aimed to become a teacher, through her assiduous occupation and confinement, becomes consumptive. Are you going to tell that girl, "You are consumptive; you can't teach in our schools, but you must go to the poor house." She may have no place to go; she may have no relatives to provide for her These thoughts have often come to me, and I have often felt that the State ought to provide for such persons. In regard to teachers, it is not alone the disease that may communicate to the children—and children will receive the infection much quicker than grown people—but here is a danger that I have seen more than once: I have seen in San Diego, where many of our teachers are consumptives, these teachers are thin-blooded and frigid, sensitive to cold, and they are afraid of draughts, afraid of ventilation, like all consumptives. I have seen those teachers sit by and have a roaring fire in a room and insist on having the windows closed and the doors closed, so that actually when a well man would come into the room it would make him sick, and I have seen children come home vomiting and sick from being confined in such an atmosphere. Whenever a teacher gets in that condition that she cannot stand a ventilated room any longer, she ought not to be allowed to teach school. Another thing, we are either right or wrong in saying that the bacillus will propagate the disease. Some take the ground that the bacillus is merely a concomitant of the disease, and some say that the presence of the bacillus in the lung is merely a secondary result of the trouble. Be that as it may, we know that it will infect persons. Another thing, you talk about a person being well, and another being not quite so well being more subject to the infection; but we must all admit that we can take the healthiest person in the world and let him have a sore in his mouth, and let a bacilli of consumption light on that sore and it will impregnate his system. It will start a focus from which colonies will propagate to his system. The same way about a strong, healthy man being in no danger by eating food upon which some of these bacilli have been deposited. It may be true as long as there is no abrasion, but the slightest abrasion gives a point of entrance, and we cannot be too careful in that respect.

The President: This completes the programme for the afternoon session unless there are some volunteer papers which could be presented properly at this time, as we have at least a half-dozen very interesting papers for this evening, at which time we expect a large attendance. Dr. Nutting informs me that there is a most interesting volunteer paper presented by Dr. Herrick, of San Francisco. The title of it I do not remember.

Dr. Ruggles: I have the paper by Dr. Herrick. I now make a motion that this paper be read by title and referred to the Committee on Publication. (Carried.)

Dr. Ruggles: Here is a paper by Mr. Oates, architect, formerly Plumbing Inspector of the City of Stockton, whose ability I fully recognize, he having served, as it were, under my supervision for two years, and therefore I move that this paper be read by title and referred to the Committee on Publication. It is a paper on "Ventilation of Public Buildings."

The President: Here is a paper by Dr. S. S. Herrick, of San Francisco, on

Pollution of Potable Waters.

Dr. Ruggles: If there be time and any one is willing to read Dr. Herrick's paper, I wish that it could be read for the reason that the State Board of Health is struggling, so to speak, with the question of contamination of drinking waters. I will state that amongst the proceedings of the State Board of Health at its previous meeting the subject has been discussed frequently and very effectually, I think, in relation to the contamination of the drinking waters coming into the Sacramento River. It is a fact that the Board has visited the State Prison at Folsom, twenty-two miles from Sacramento. There are 900 convicts there. Their fecal matter is turned directly into the American River, undiluted, and everything in perfect shape, and goes down the American River to the citizens of Sacramento. When the question was presented to the directors of that institution in regard to the impropriety of such action, they immediately said, "Why isolate us, why pick us out and not pay any attention to those on higher portions of the river," meaning Red Bluff, Marysville, Chico, Colusa and some other points. The argument was irresistible. Therefore a committee was appointed by the Board to visit those cities, and at the same time to see as to the amount of contamination of the Sacramento River. That committee will report to the State Board of Health at its next meeting. This paper of Dr. Herrick's appertains, as I understand, to that very question: In what way are the drinking waters of our rivers contaminated by sewerage? Therefore I hope if there is some gentleman here with a good voice that he will read that paper. (Paper read by the Secretary.)

Dr. White, of Sacramento: I am sorry to say that I did not give the paper the attention that its importance demands. The fact that the subject of pollution of water supply is particularly placed in the American River makes it a matter of interest to all Sacramentans. The Folsom prison is situated some twenty miles above Sacramento, and, as the writer states, the sewage from that institution is carried direct to the American River. The pollution of the drinking water from the river, of course, will in time necessarily follow. Up to this time I believe the statistics of the Board of Health do not show an increased amount of disease such as would be expected from that contamination. We are, however, awaiting with fear and trembling that the statistics in the future will develop an alarming condition of affairs, and we are praying that a law will be passed to forbid the State from contaminating public streams. The cities above Sacramento, as Dr. Ruggles states, also empty into the river, and also add their filth to the water which we drink. The law is lamentably defective in permitting that condition of affairs. What will be done in the future will rest largely, I presume, with the State Board of Health. We hope that they will take active measures to bring the subject before the legislature in such a forcible way that it will be compelled to act.

The President: The question has been raised whether we shall read the minutes thus far or wait until the end of the Convention, as the minutes will be approved by the Convention. What is your pleasure?

Dr. White: I move that the reading of the minutes be dispensed with until the business of the Convention is over. (Carried.)

The President: I will state that circumstances, as you know, have interfered largely with the attendance to-day. Physicians coming from a distance are met by friends and are scattered hither and thither, and the physicians of the city are at their offices, as they are usually when a Convention meets in their own city. We will have a good attendance this evening and a good programme, and we contemplate calling the Convention early, as the programme indicates, at half-past six.

(Adjournment was here had until half-past six P. M.)

EVENING SESSION.—A paper was read by DR. D. B. VAN SLYCK, of Pasadena, on

House Ventilation.

DR. GEORGE D. COLE, of Los Angeles: Mr. President and members of the Convention, I certainly have been greatly pleased by this paper, and in it I find nothing to which I could take exception. If we could inculcate these principles into our families who come under our care, in the long run we would probably do them much more good than we do by writing prescriptions for them. However, the majority of families cannot appreciate such advice, and I suppose we will continue to go along in the same old way, writing prescriptions for the money there is in it, and the families will appreciate it in their same old manner. It is a difficult matter to get people to put into practice. One thing that occurred to me while Dr. Van Slyck was reading his paper, is that medical men, who know full well these principles, are just as slow to put them into practice as are the public—people who are supposed to know very little about them. I think that if to-day we were to start out and go around among the offices of the physicians and their residences, we would find that they fail to carry out these principles to just as great a degree as do the people at large. With regard to the ventilation of houses in this warm country, a semi-tropical climate, I think that the most of our houses are built in such a manner that the air gets through the crevices, and ventilation is much more perfect. The doors are open much of the time, and really I feel that we suffer less from improper ventilation in a climate of this character than do those who live in a rigid clime. Yet we should be none the less careful in following out these principles. I regret that this paper will not reach a larger class of people than it will. I wish it could be published in such a manner that the people at large might get the benefit of it.

DR. VAN SLYCK: I have just this word to say, that although this is a mild climate, and when the sun shines we can always get along so as to have very fair ventilation during the day time, the greatest menace to health are the cool nights. The nights are always cool in this country, almost always through the entire summer, and there are so many people, invalids, especially consumptives, who are afraid of the least breath of air from outside, if there is a suspicion of anything like a draught the windows must all be shut, and the most of them sleep in rooms without even a window let down from the top or open at the bottom. A window open three or four inches and the shade drawn down over they think is pretty fair ventilation, whereas it is no ventilation at all. It would be very easy, in building houses, to have some sort of ventilating flue, which could be heated, if they could not afford an open fire-place or anything of that sort, just a simple flue heated by a lamp or a gas jet would afford good ventilation for a sleeping room. If I were to advise a consumptive patient in preference to any other kind of treatment or any kind of medicine, it would be to insist upon having a room with an open fire-place in it, or I would ask them to hunt the town over until they found a room where they could have an open fire-place, and then the thing would be in their own hands. If it gets cold in the evening they can have a little fire, or even a lamp in the fire-place to ventilate at night, because they will not have the rooms open, because they are sure they will catch cold if they do.

Dr. Norman Bridges, of Los Angeles: Dr. Van Slyck's paper certainly is a most admirable one, and it included a great deal of what I should have said had his paper not been read. It seemed to me, and it seems to me now, that there is among all the sanitary needs one that is paramount. And when we say a sanitary need and refer to the sanitary need that is paramount, we of course understand one that is possible of accomplishment or supply. There are a great many things that we would like to have for our comfort that are impossible, that are not attainable, and we should not speak of those in a practical discussion like the discussions that should be had in a convention of this sort.

Dr. Van Slyck has very well stated the different and several harmful influences that are brought to bear upon human beings in the shape of bad foods and poisons, and he might have added injurious occupations and all that—infection and so on. He has hinted at, indeed, he has stated what the paramount need is. The paramount need is a need of a reformation in our mode of living and life that is attainable to a certain degree. It is of better ventilation for the rooms and in the rooms that are occupied by people when they are at rest, namely, when they are sitting and when they are sleeping. The ventilation of rooms that are occupied by people working is not so important, because nearly all rooms, factories and stores, are being opened more or less, people coming in and going out, and that makes a little ventilation. In some cases machinery is in operation, and that produces some ventilation. In many of them heat is present and that produces ventilation, and then people can work at a lower temperature, and they are therefore not as obnoxious to colds from draughts. I believe that the need for better ventilation, therefore, for people when they are sitting in sitting-rooms and when they are sleeping to be the paramount need in a sanitary way that is possible of attainment.

Dr. Van Slyck has explained in a very forceful and minute way how rooms should be ventilated; how houses in general should be ventilated, and he has spoken of some methods of ventilation in a private way and an inexpensive way that I confess I had not thought of, or if I had I certainly had not thought of it in connection with this discussion. Everything that he has said about this matter is wise, and it is a matter of great moment, I think, that the profession of medicine should take up the systematic discussion and advocacy of laws for better ventilation of new houses. We cannot bring about legislation for ventilation of old houses, but it is as proper, as attainable, it seems to me, to insist on some means of ventilation in new houses as it is to insist on correct sewerage and correct construction in other directions. But even if we should agree that we would unanimously memorialize the legislatures and the common councils and the boards of trustees of towns, and if we should succeed in accomplishing a rigid system of inspection of plans for new houses, to the end that they should all have some means of ventilation, it would be a long time before we would do very much good. It would gradually educate the people, and the advocacy of these measures would educate the profession in the right direction.

Now, the question to me and the question to all of us is, can we not do something without involving the expense of new houses and additional facilities in new houses, something that will not involve the necessity of legislation at all, but that will simply grow out of education of the public and the systematic work of the profession. The profession does not need to be educated about these matters. The profession knows, and, as Dr. Cole has well said, the profession neglects. It knows well enough the people ought to breathe pure air, and it knows well enough the people ought to have houses so constructed that the inhabitants may have good air, and yet it allows people to go on building houses in the most abominable way imaginable, exactly as though the profession had entered into a league that it would increase its own business. Of course the thing is impossible that any doctor would allow a patient or a friend to build a house in an unhygienic way simply for the purpose of bringing himself more business. It looks that way and it might be well charged upon us from the outside. It seems to me we can do a great deal in a particular direction without expense and with the facilities at hand, with the miserable houses and miserable tenements and miserable hotels and boarding houses exactly as we find them.

We spend in the rooms that I have referred to—the sleeping rooms and the sitting rooms—at least $\frac{10}{24}$ of our time. So all that Dr. Van Slyck has said in arraignment of the bad air and living in bad air of the sick and the well is true of most of us, ten hours out of twenty-four, at least. It is true as to some of us for twelve hours out of the twenty-four. We are breathing just such contaminated and miserable atmosphere as the doctor has referred to. The injury from breathing bad air can be understood better than any other way by noting how breathing good air serves the sick and serves the well, and that Dr. Van Slyck has set forth in his exposition. We send patients away from home that they may live in the open air, and the consumptive patients occasionally get sent out to some place where they can live in tents simply for the purpose of giving them fresh air. If a person droops and becomes debilitated and loses his appetite, we are very likely to say he should have an outdoor occupation, that he is too much confined indoors. It seems to go without saying, it seems to be a matter of common knowledge, that indoor life is the bane of mankind, which is true. It is the bane of mankind. As the doctor has also said, soldiers don't take cold; soldiers in camp life are usually healthy; they sleep on the ground covered with a blanket or sleep in tents. They do not take cold; they are healthy and vigorous. When they go back to home life and live in rooms they begin to take cold. The reason why most of us take cold is that we are lowered in our physiological standard. Let indigestion come, let a lot of fresh ptomains be produced in the alimentary canal, to be absorbed, and a person will take cold twice as readily. It is not the draught, it is not the chilling to the healthy person that produces the common cold, but it is these influences to a debilitated person, a person debilitated from any cause, and the debility incident to breathing over and over the atmosphere of a room contaminated with his own breath and with other contaminations, these things, I say, are among those that most powerfully lower the vitality and produce the susceptibility to cold.

The common belief is that night air is harmful and that currents of air are especially prone to produce colds; moreover, that colds, cold-catching, are the great bane of our lives and the beginning and cause of a large number of mortal illnesses. I am sure that we can never accomplish much good in the direction we have indicated until and unless we can convince the people that they are mistaken in two or three particulars. In the first place, we should endeavor to convince them that night air is not poisonous and is not harmful in any way. That seems a strange proposition to be made in a medical association, to need to be made to a medical audience; and yet that is one of the directions in which, if we are to accomplish any good to the public, we must work with the people. A great many doctors curiously have the impression that patients must run indoors from the night air—go in as soon as the sun approaches the western horizon—and not come out until it is one or two hours high in the morning. Nearly every sick person who comes from the East into this quarter for his health, and practically all—the majority, certainly—of well people who come here to live, are told by dozens of people, old settlers, that the night air is dangerous, that it is always cold. It is cold, it is true. They are told they should go indoors about four or five o'clock in the afternoon and not appear outside until eight or nine o'clock in the morning. So that if they take that sort of advice they are sure to be housed twelve or fifteen hours in the twenty-four. If the night air is harmful it is harmful to let it into the the rooms. Of course, it is night air in the house as truly as it is out of doors. But the people don't understand that. They understand that the atmosphere that is in the rooms is somehow safe to be breathed, but that the atmosphere out of doors is extremely harmful. There never was a greater heresy on earth. There cannot be a greater heresy. Night air is distinctly a cleaner air to breathe than the day air, and a better thing to breathe than day air. It has considerably less dust, and its microbes are only about 40 per cent of the day air;

microbes of all sorts. Of course, the majority of microbes are not pathogenic, as we all know, but the microbe and its admixture of the night air probably do not amount to more than 50 per cent of those of the day air. There is only one trouble with the night air: it is colder, and that is all there is about it. If we could remove the impression from the public mind, therefore, that this is a harmful thing, we would accomplish a very great good. It would remove this bugbear of terror from the minds of the sick, and they would be willing to breathe the night air if they could somehow do it without taking cold.

A person will not take cold by reason of cold air or moving air, provided his body is warm at all times; and therefore a patient may sleep in a tent, or under a wagon, or in a room with windows on nearly all sides, and windows wide open, and he may feel the current of air over his face every moment he is awake during the night and he will never take cold, simply for that reason, provided his body is warm; and any person who has any considerable proportion of the normal vitality of the human body may keep his body warm by clothing it in wool. Therefore, one of the first steps for the profession to take, I am sure, is to convince the sick, certainly, and the well as far as possible, that in a country like this, where there is such a difference in the temperature of the day and the night air, and where so few houses are warmed in the night, that people should wear woolen night gowns, and if necessary in the winter time should sleep between woolen blankets instead of cotton sheets, and if necessary to protect the head, particularly if it is bald, from sensations of a draught, they should wear woolen night-caps. If they will do this they may be told, without any danger of a mistake, without any danger of accident, without any danger of demonstrating that we are wrong, that they will not take cold to save their blessed lives if they will do these things. If we could do this for the sick we would remove one of those obstacles, I am sure, to good ventilation for sleeping rooms. These people with the miserable rooms they have, therefore, may have good ventilation when they are asleep. There is no difficulty about it at all. They have to be convinced, however. They won't believe this at first, but a reasonable patient will nearly always believe it, and I have had a good many dozens of patients in the last five years here who not only have believed it but have demonstrated it.

This problem, therefore, is easier of solution, than the problem of the sitting-room. A person can clothe himself and get into a bed and throw the windows up and never mind if it is cold; he can keep warm. He is still; he is surrounded by a large amount of clothing. He will do this more readily than he will sit in a room to read his paper or read a letter or play cards with his friends or chat with them, with good ventilation, when his room is very warm—and here we are confronted with some difficulties like those suggested in Dr. Van Slyck's paper. It seems as though we must have ventilation in order to have health. We certainly must in sitting-rooms. Better ventilation is needed there than in sleeping-rooms, for the reason that there must be lights, and unless the lights happen to be incandescent lamps, of course they destroy more or less of the oxygen in the room. Moreover, the oxygen of the room is frequently harmed by the heating apparatus. A gas stove unconnected with the chimney, or a kerosene lamp, is very likely to be the means of heating these rooms among poor people. They will not ordinarily, therefore, have good ventilation. How can we induce them to have good ventilation? How may we change their circumstances? One of the first things to do, I am convinced, is to induce them to clothe themselves better as they sit in their sitting-rooms at night. And so invalids and all people should be urged as far as possible to wear like underclothing the year through, as thick underclothing as possible, even in summer.

What can be done in the matter of heating sitting-rooms? Dr. Van Slyck has told of some of the means and of the best means. The great difficulty in Southern California, the great obstacle, is the expense of heating. There is no doubt about that. Fuel is high. Therefore the fuel should be made to tell to the utmost in the production of heat. Valuable as fire-places are for ventilation, they are very bad from a standpoint of economy for heat. It was long ago demonstrated that a fire-place only gives the occupants of a room about 10 per cent of the heat of the fuel, and 90 per cent goes up the chimney. A tubular furnace or a tubular stove put in a room, a furnace under the room, if you please, will preserve to the occupants about 90 per cent of the heat produced by the fire. If we cannot induce people to build houses with furnaces constructed as Dr. Van Slyck would have them, we can induce people now and then to put into the basement, to supply the sitting-room and the hall of the house with warmth, a common heating stove, and to have that surrounded by a double wall of wood or a wall of brick, and a current of cold air brought in from out-doors, to deliver fresh air into that chamber around the stoue. A register in the floor above that will enable the family to receive the benefit of probably 40 per cent more of the heat produced by a given amount of fuel than is accomplished by a fire-place. If expense is an object, and if it is an object to economize in fuel, better than have a fire-place, have a common heating stove put into the middle of the room, or near the middle of the room, a little distance from the fire-place, and have it discharge through up into the fire-place, the front of which shall be covered by a piece of tin or sheet-iron.

I have known a good many pulmonary patients I believe to die who might have been saved for a long time, if not restored to health, by simply taking too much exercise. I think it is one of the foolish injunctions put upon a great many pulmonary individuals, particularly those that have fever, to exercise much. I personally believe that pulmonary patients who have fever should exercise very little, and that none of them should ever exercise beyond the desire of his muscles for exercise. When we go out in the morning we stretch ourselves, or when we get up, before we go out, perhaps, and it does our muscles positive good and gives us joy, and when we go out in the morning we walk around the block, or perhaps a mile, and there is positive muscular pleasure in doing that. The patients know that. The patients don't know how they can be out-of-doors without riding or driving, or walking, and not take cold from chilliness. When told that they can sit on a verandah on a chair and put on an overcoat, thick ones, mufflers around their necks if necessary and cover their knees and legs and feet with a blanket, a heavy blanket, it is exactly as though they were riding in their carriage. When told that they can do this they are greatly surprised. It is a brand new idea, and many of them are slow to adopt it, and those that do seem rather pleased at the idea and surprised that they had not thought of it before. It shows how we fall into ways of doing. We get notions that become automatic to us and the sick especially, that are erroneous, and it needs some scientific person to remove these notions. I know I have helped a good many patients, and I presume many of you have, in this very direction, by showing them that they could sit out-of-doors in a chair on the ground and cover themselves up, and that they would be just as well off as though they were riding in a carriage that cost four or five dollars a day. I believe that when we go at it systematically we can convince people, particularly invalids, that they can do these other things, and so we may accomplish the paramount need in a sanitary way.

DR. W. F. SOUTHARD, of San Francisco: Mr. President, I have unfortunately given but slight study, and that in no systematic manner, to the subject under discussion, I am therefore wholly unprepared to give this question that consideration which it should have. Private hygiene and public hygiene, ventilation of dwelling houses and public buildings and kindred subjects should receive the most careful attention of every physician, for we cannot expect the general public to understand the great importance of these questions in advance of those who should be their teachers in all such matters. The practical application and demonstration of this knowledge should be at the bedside of our patients. It is usually believed that the medical profession is educated upon all these questions. Is this true? As a class are we sufficiently well informed regarding hygiene, ventilation, foods and their preparation, to warrant patients accepting our dictum as final? It must not be forgotten that the people are being rapidly educated by the daily press, magazines and current literature; we must therefore be prepared to meet our patients with intelligent answers to the numberless questions which they are continually asking.

All the legislation in the world will not amount to a hill of beans provided it has not the support of the public, it is therefore absurd to think that we can make people take care of themselves by act of legislation. On subjects upon which the public are fairly well informed legislation may be made effective, such as plumbing laws, vaccination laws and quarantine laws.

One of the most important subjects and perhaps as little understood as any is that of ventilation and heating of rooms; the proper supply of fresh air to the inmates of sleeping-rooms should especially be commended to the attention of physicians. One-third at least of the 24 hours is spent in the sleeping-room, another large portion is spent in living rooms; the air of the bed room is vitiated by the poisonous exhalations from the inmates; the living-rooms have in addition stoves, lamps and gas to pollute the atmosphere. The air is usually kept in motion by frequent opening of doors and windows, and the movement of people in and out of the living-room, hence, this atmosphere is less dangerous than that of the sleeping-room. Dr. Van Slyck and Dr. Bridges have spoken on these points so well, I fear that I can add but little which will be either interesting or valuable. I desire, however, to emphasize Dr. Bridges' remarks upon the prevalent idea that night air is deleterious. It is singular how wide spread is this notion that night air is unwholesome; the average person fears the night air more than he does rebreathing his own bad breath charged with carbonic acid gas. I have not infrequently been asked by patients if it was safe to keep a window open and let in the night air into the bedroom; I have but one answer, viz: "You have no other air to breathe excepting night air." Our aim is not to keep out the night air, but have it as fresh as possible and displace the carbonic acid thrown off by the lungs.

There are many points of great interest which I should be pleased to discuss, but the number of papers yet to be read will prevent. I would add that physicians in visiting the sick-room should note the general sanitary condition of the house and its surroundings; the ventilation of the sick-room; if in a private house see if the air which is taken into the sick-room is brought in from some damp, ill-smelling area between other buildings, or from the cellar, as is generally the case, or does it come in fresh and uncontaminated. The question of food is of equal importance, its kinds, and quality, its methods of preparation, and best of all the care in serving it so that it may be attractive and palatable to the patient; this is worth as much or more than the drugs which are prescribed. The thoughtful physician in these matters will meet with greater success than he who gives little or no attention to details.

It is most unwise to permit plants and flowers in the sick-room or even in the sleeping-rooms. They look well but are deleterious to health. Unless the air be pure the strongest and healthiest person will in time suffer from its effects, they will experience a deterioration in their physiological system which will make them susceptible to disease.

Before I sit down let me allude to a subject which has not been touched upon in any paper or in any discussion during this session. I refer to that abomination of abominations, the Pullman palace sleeping-car. I speak feelingly upon this point as I came down on one last night,—I see that I have struck a responsive chord in your hearts. It is a difficult matter to find language to express my sentiments concerning this chamber of horrors. Everyone who has travelled much in these gilded saloons on wheels must have at times experienced the ill effects of a night spent on one of its shelves, which when enclosed by curtains gives one a sensation not unlike being in a closed box. Is it any wonder that in the morning many of those who have spent a night in a Pullman sleeper feel unrefreshed and tired; have a bad taste in the mouth and a dull headache. Several persons in our car awoke this morning with headache which did not pass off until this afternoon and which was wholly due to the vitiated air in the sleeper. In the upper berth one gets all the benefit of the bad air which comes from below and from the horrible oil lamps which should have been banished years ago to the ash heap. The porter always turns down those which he does not extinguish; the gas arises from these partially burning lamps and one entering a sleeping-car at night cannot but notice the combinations of coal oil smell and the odor of vitiated air. The upper berths are in line of draughts from so-called ventilators which do not carry off the products of combustion, yet are draughty. The lower berths are so shut in that the sleeper must necessarily breathe over and over again his own poisonous exhalations. These cars are either overheated or underheated, at one time you are in perspiration, at another you are freezing, there is nothing equable about their temperature. Hundreds of thousands of dollars have been spent in devising a car which must be acknowledged to be beautiful to look at and easy to ride in, but far from healthful. The day car or tourist coach is much more healthful, for, though it gets pretty dusty, it also gets more fresh air. Then the bunks of these cars are cleaner at all times for not being upholstered. The old English compartment car which obliges one to sit up is less deleterious to health than the most magnificent Pullman car.

I have touched upon only one or two of the many subjects which ought to be of interest to all persons, especially sanitarians. Dr. Van Slyck and Dr. Bridges have given us much food for thought, and many valuable suggestions which we should endeavor to follow.

Dr. D. B. Van Slyck, of Pasadena: All of Dr. Bridges' remarks were certainly admirable, and I wish to refer, in continuation of the allusion in my paper, to the treatment of patients in Switzerland. They are kept in the open air in the way Dr. Bridges suggested, when the thermometer is only ten degrees above zero, or down to zero. They are kept warm by clothing, but still kept in the open air in easy chairs. Dr. Bridges suggested a stove in the middle of the room, when the expense of fuel was an object. It is very easy with a stove of that sort to have excellent ventilation at no additional expense to amount to anything. Of course the stovepipe goes into the chimney, and the chimney is a heating flue. If you have what corresponds to the cold-air box on the furnace to deliver air to the stove, you have a castiron cylinder with a sheetiron casting to it. The cold air comes up from underneath and is heated the same as in the hot air chamber of the furnace, and is heated and passes off into the room. If you have a ventilator at the bottom of your chimney, you will have as good ventilation in your room as you can get from any other appliance. The air is taken out systematically from the bottom of the room. The cold air is brought in from out-doors and is heated by your stove and passes up to the top of the room and then descends, and it is easy to have a sitting-room heated and ventilated in the same manner in that way. It is no waste of fuel, and with your window or door open you can have most excellent ventilation.

Dr. W. W. Hitchcock, of Los Angeles, read a paper on "The Gymnasium from the Standpoint of the Sanitarian."

Dr. J. R. Laine, of Sacramento, read a paper on "Public Hygiene," which will appear in next number.

Manual Training and Health.

Prof. Charles H. Keyes, of Pasadena: I have no paper, so I have just a little the advantage of my brethren who are better prepared. I can stop when I think the danger point is reached. Many years ago, as I went into the business of education, I determined that I would never lose an opportunity, not simply to attend conventions of educators, but the conventions of men and women who were in distinctively different lines of activity; and as I look back over the years that have gone, I am constrained to confess that some of the greatest advantages, some of the best reinforcements that have come to my thought in my own line of work have come from attending gatherings of members of other professions.

I congratulate myself that it has been my privilege to be here this evening to listen to the discussions that have taken place; to realize that the medical profession at least has come to the conclusion that it is time to turn the mind of scientific inquiry toward the normal body. In the nature of things in the development of medical science the young man, and I may venture to say in this day the young woman, has her inquiry constantly upon the abnormal body. If there be any reason for the being of such organizations as the one under whose auspices we are gathered this evening; if there be any excuse for the discussion in public of such themes as I find upon this programme; if there be any excuse for the presentation of such a theme as that announced for myself, it can only be that we have come to the conclusion that it is time now to give a little thought to the normal; that long enough the abnormal has absorbed our attention.

In every profession men get credit for a great many things they don't know, and, if you will pardon me, you of the medical profession get a large credit for some things you don't know as well as for the great many things you do know. Whether you know it or not, the laity conclude that you know all about this business of hygiene; you know all about the real value of ventilation, of hygienic exercise and practice. You know how far that is wide of the fact, or how accurate it is, but that is immaterial to the point that I desire to make. As long as it is in the public mind you are vested with the only voice of authority on this question, there devolves upon you the duty of reinforcing this lesson, not simply in State medical conventions, but among the laity. The men and women who come to you with weakly, broken-down bodies are not the only ones who need to learn this lesson, but in the interest of humanity, whose mission it is your duty to serve, this gospel should be preached by the physician who believes the upbuilding of a noble race of men and women to be a part of his calling.

I was glad to know that my friends who preceded me were all agreed that in this matter—and you may wonder where the medical training in health comes in, but it is coming right along—were all agreed that it was high time that in education there must be some attention paid to training bodies. We have harped on those old truisms about the healthy mind and the healthy body so long that it has become absolute cant, but in practice we have no faith in it at all; and we are beginning to cant in education. Let me illustrate. You hear everywhere that the business of education is to train young men and women to govern themselves, to be self-governing citizens. Now, stop, friends, and ask yourselves what is the one place where a young man is never permitted to govern himself? It is in school. It is the only place. Yet we teachers and citizens say we believe that it is the mission of the school. That is all cant. We don't believe in it yet. We think we do, and by and by we will come to believe in it. We will have the courage to practice according to our faith. Right opposite that cant I put this other one: we have been saying we believe in sound minds as being possible only in healthy bodies, and we have absolutely ignored all training of bodies. While there is a little bit of gymnastics for relief or because it is the fad to talk about gymnasiums in schools, how many people are ready to go down in their pockets and provide the money for the only intelligent gymnasiums that ought to be connected with the schools—a gymnasium that has at its head a man who is able to take account of stock. What would we think of a teacher who undertook to teach mathematics who could not, when his class came to him, take an account of stock on hand and discover what they knew about algebra or trigonometry or the calculus. The first thing to do is to find the exact condition in which he finds that class. It is not the theory that he is troubled with, but the exact condition that confronts him so far as the mathematical condition of that class is concerned.

A gymnasium is worse than dangerous if it is managed without somebody at its head who is able to see just exactly what is the condition. What may be my boy's meat may be your boy's poison. What may be good for this girl may be utterly destructive of the other girl. I have said, when I have gone about this country trying to find some man who would go down in his pocket, when he asked me what kind of a gymnasium I wanted, "I want no gymnasium until I can have the wherewithal to pay a man or woman, or a man and woman, who shall take every young man or young woman who comes to that gymnasium and make a thorough physical examination."

The study of psychology as a necessary part of a medical man's education was dwelt upon. Not only must medicine be studied, not only must hygiene be studied, but humanity must be studied, and humanity in its normal and abnormal states.

Speaking of the class of abnormals, we were told at Glen Ellen that it was noticeable that they did not walk well. I always say to men and women who are anxious to know more about the business of teaching, "You ought never fail to improve a chance to visit a fool school." The best educational clinic in the world is a well-conducted fool school. If you go into one of them, what is about the first thing you find them doing? Here is this contrivance that you call a ladder, and the boy comes in so bereft of intellect or with an intellect so undeveloped that he cannot speak. He shuffles his feet, and they have him step over this ladder that is laid down there. What does it all mean? That science has discovered that there is such a close connection between the defective intellect and the bungling, clumsy, weakly motor energy that we discover it in another way. Manual training came that way. Every child who is off-color intellectually will display it more quickly in his defective motor activities, in his defects of muscular application, than he will in other ways. To put it more completely, the boy who is a little off-color intellectually, who is not quite up to the standard, may get through the class in English or may get through the class in geography and not disclose it half as quickly as he will in the wood-shop of the manual training school.

Any exercise to be of best value must not be taken for the sake of exercise. The exercise must not be an end in itself, but simply an accident. Any exercise to be most beneficial must be regularly and systematically taken. Now you know how hard it is for you who may appreciate the value of exercise to make the good resolution that you will take your exercise regularly, and do it, unless you are wise enough to hedge yourself in by making your exercise an incident to some pursuit that is a passion with you, some pursuit that is a delight.

The manual training school first of all sends the young man to a given business at a certain hour every day and keeps him at it regularly. It is taking all notion of exercise out. The young man or young woman enters the shop or laboratory or study, with no thought that he is going for exercise, yet it is going to give him regular and systematic exercise. It must give him exercise that is planned with reference to the fact that he has a two-sided body, with a right side and a left side to it, and any manual training that simply develops that side and that arm, and forgets this hand and this side, is no manual training that can justify itself with the great masses of people in all stages and conditions of society here in America. But the best of all is the fact that it conceals the purpose so far as the sanitary effect is concerned.

I am one of those who believe that this matter of sanitation is so important that I would very highly value a law that would compel my friend Southard and others like him to give of their time to the public by going into the schools and examining the eyes of every child who goes there. How many of us stop to realize that a very large percentage of the children in this country who have weak eyes and defective eyes at 15 and 16 years of age have them solely through our neglect in this line. A boy goes into a school with a good right eye and a good left eye, but they were not mates. That is not remarkable. We don't think it strange, for you and I have a pair of feet that are not mates, or a pair of hands that are not mates, or arms that are not mates. I suppose in the strict sense of the term there is not a man here that has a pair of hands that are mates. You physicians could come nearer it than most people; that hand is worth half a dozen of this one, as the average man is put up, and we think it strange that any one should suggest that eyes are not mates. Here is a right eye that is focused here, and another one there, and you try to work them both together, and what is the result? By and by you have a pair of eyes that are mates, but neither one is good for anything. You had two good eyes, not mates, at first, and you have two perfectly mated, and both are bad. The physical faculty that we use more than any other is the visual faculty.

I recognize that my theme was manual training and sanitation. Our friend, the President, could put his hand down there on something, and it will tell him more than my eyes and both my hands will tell me. What has he been doing? He has been educating that hand of his. His profession has exploded the old fallacy that men learn of the outside world chiefly through the eyes. He has educated that it was that wonderful faculty that educated the eye to begin with, and for him his hand is another pair of eyes. The manual training school says that not simply the physician is entitled to this kind of training, but every boy should have that other pair of eyes that will come through education of the hand. And so your theme and our theme are the same. Manual training is a plea not for just one sided education, but for an all-round, symmetrical education that recognizes that it must be given to a soul, to an intellect, to a mind, to a spirit that is resident in the body.

The President: The next thing on the programme is the "Report on Anti-Toxin." That will be referred, as it is now a quarter to eleven.

Dr. W. F. Southard, of San Francisco: There is one word that ought to be said in regard to this address which has just been given us, and it is this: In the first place the Society ought to pass a vote of thanks, because it is a subject that ought to come home to us all, this very line of thought which the Professor has given us. Preventive medicine, which this Society is engaged in, is one of the most glorious things connected with medicine. It beats all the prescribing of drugs that can be dreamed of, and to prevent disease is a great thing. The future of our race, the future of our country depends upon how we shall bring up the children, the boys and girls, and bring them up correctly.

I have had the privilege of meeting teachers in this section quite a number of times, and I know the interest which they have taken in all these subjects, and every year it becomes more and more apparent that there is a closer connection being brought about between the educators on the one side and the physicians upon the other; that they are looking to the physicians to give them a certain amount of knowledge which will help them in their work, and we are looking to them to show us more about the mental development of children, and so on. All this should be taken into consideration by the physicians, these subjects are so mingled that you can't separate one from the other and let it stand out as an entity by itself.

The progress which has taken place is very remarkable, and anyone who feels a little discouraged, if they will let their minds go back a few years they and we can take courage. I remember about twenty-three years ago I attempted to find some books on the subject of hygiene, I ransacked the largest book-stores in Boston, and sent to New York, and but one copy of any work treating exclusively of hygiene in any way, shape or manner, could be gotten, and that was an English book which at that time was out of print. It was a very small book of probably 150 or 200 pages. Within the last twenty years the subject has become so wonderfully broadened that everybody has taken an interest in it from various points of view, and now we have at least half-a-dozen journals devoted entirely to different branches of dietetics and hygiene, and all that sort of thing, and many volumes have been written on these subjects; for that reason it is that we can take courage for the future in looking back over the last ten or fifteen years.

I think in the light of the magnificent address which has just been given us, and which will give us a great deal of food to think about when we go home, that it would well become us to give a vote of thanks to Professor Keys.

(Motion made, seconded and carried unanimously.)

THE PRESIDENT: Permit me, on the part of the State Board of Health, to thank you, gentlemen and ladies, for your attendance and attention at this Convention.

Adjourned.

THE TWENTY-SIXTH ANNUAL MEETING OF THE MEDICAL SOCIETY OF THE STATE OF CALIFORNIA.

The twenty-sixth annual meeting of the Medical Society of the State of California was held at Los Angeles, April 21, 22 and 23, 1896.

FIRST DAY.—The President, DR. LE MOYNE WILLS, in the chair. The number of members present at the opening of the session was upwards of fifty, and at the close of the forenoon session there were seventy-five present. DR. W. G. COCHRAN, Chairman of the Committee of Arrangements, in his address of welcome, dwelt upon the great changes which had taken place in Los Angeles during the interval of six years which had passed since the Society last met here. DR. BEVERLY COLE, of San Francisco, responded in his usual humorous manner. After which followed the

President's Address.

Another year has rolled around and for the twenty-sixth time since its organization, the Medical Society of the State of California meets for its annual session and for the second time in its history honors the southern part of this vast commonwealth by meeting in the City of the Angels. We of the south and of this city bid you a hearty welcome and appreciate more than words will express the unanimous choice of this city as the place of meeting for this year, especially as it necessitates a longer journey than usual for most of you, and we will do our best to so entertain you that you will not regret your decision and wish to come again.

It will be difficult to surpass the pleasures of our last meeting here, but if we can make this one as enjoyable and fill this professional holiday with memories which will stand side by side with those of your first visit we will all be satisfied. As this is a gala season and a holiday time, it will not be possible to extend to you the usual hospitalities, yet we hope the variety and novelty of the Fiesta will be more entertaining than the usual receptions, balls and banquets. For the medical exercises this Fiesta may be distracting, but for the ladies we are sure the two meetings in the same week will be what they would choose—so while not planning for a common use of these dates, we hope our exercises will be promptly and pleasantly carried on and the evenings given over to gaiety and pleasure.

The medical profession has reason to congratulate itself upon the many wonderful discoveries and inventions of the past year, which stand out in bold relief from the great progress of the past decade. While surgery has made vast strides forward since 1873, when Lister announced his antiseptic theory which revolutionized surgery and surgical procedures, medicine has seemed to lag behind. From the cumbersome details of the carbolic acid period have come the simpler methods of asepsis, but the principle is the same and dates back to the distinguished English surgeon. For the starting point in preventive medicine we must go back into the last century to Jenner, who discovered vaccination, which has protected man from one of the most contagious diseases. This was the real beginning of serum therapy and immunization.

Jenner showed a conservatism which could well be emulated to-day, since he studied his subject for thirty years before announcing his discovery and then waited two years before publishing his first case of vaccination on man. There was no application of the preventive method to other diseases for many years until Louis Pasteur, after years of experimentation on animals, succeeded in counteracting the virus of rabies and applied this treatment successfully to man, thereby earning everlasting fame. By his recent death the world has lost one of its most brilliant and scientific investigators and one of man's greatest benefactors.

After many years of controversy as to the infectious nature of tuberculosis, the medical world was thrown into a state of great excitement when Koch, in 1882, announced his discovery that a specific bacillus was the primary cause of tuberculosis and demonstrated that the disease could be reproduced in susceptible animals. This came as a confirmation of theoretical conjecture, not a surprise, to many students, who had accurately observed the history of the disease, and who had experimented with tubercular tissue. These workers joyfully received Koch's communications on the subject, duplicated his methods in their laboratories and confirmed his results and deductions.

It was very soon admitted that the characteristic bacillus found in all tubercular tissues and their discharges was not the cause of the disease, but the incidental accompaniment, and confirmed by experimental researches contemporaneously in all countries. The infectious nature of the virus was established beyond a doubt and it was reproduced in susceptible subjects, not by experimental inoculations but as readily by inoculation of an abraded surface by the unsought contact with matter containing the specific germ.

Modern science teaches that tuberculosis is rarely hereditary, almost always communicated, and if not preventable is at least capable of very great restriction. Since we know that the infectious material resides wholly in the secretions from the diseased part, it seems possible to restrict the propagation of this disease with more certainty and less inconvenience to the afflicted and their friends, than in any other infectious disease. To secure such restriction, a campaign of education must be begun and maintained. The public must be taught the nature of this disease, the methods of its propagation and the means which must be employed to control it. The plan adopted and followed with success for years by the State Board of Health of Michigan is perhaps superior to any other thus far proposed.

This plan obliges every physician and householder to report to the local board of health every case of tuberculosis. To these patients and their friends, who come in contact with them, are sent circulars of information, setting forth in simple terms all facts concerning the nature, communicability and preventive measures to be carried out to protect the patient and friends from the further spread of the disease. In order to spread accurate information concerning zymotic infectious diseases, the

State of Michigan has, within the last year, made it obligatory to teach all pupils in the public schools the fundamental facts and practical methods of sanitation in all infectious diseases.

To restrict the spread of contagious diseases, especially tuberculosis, more must be done in the way of enlightenment than merely to warn patients and friends. This education must extend to all classes and all municipalities, and all public halls, cars, streets and pavements must be treated as infected places, cleaned and washed down accordingly. The crying public shame of expectorating on floors of buildings, pavements and streets must be stopped, as it is the most dangerous of all means of spreading the contagion, and places where tuberculous people congregate and live are thus rendered deadly to healthy people. A law to prevent this filthy habit was passed by the Los Angeles City Council, but is not enforced. Denver has lately made it a punishable offense to spit on floors of cars, halls, public buildings and pavements.

It is time the different States should take up the subject of the transportation of tuberculous patients in the interest of the healthy persons who are obliged to travel overland for days and nights with the contagion in the next berth or seat. It may seem hard to the sick, but it is the duty of the medical profession, especially societies and the State boards of health, to continually agitate, and by agitation instruct the public in matters of sanitation so vital to the living and uninfected. If railroad companies will not discriminate and protect healthy passengers, the States through their medical officers and the profession must protect themselves and those intrusted to their charge. It seems very absurd to allow a tuberculous, dying man, a perfect hotbed of contagion, to travel as far as he can, but the minute life is gone his dead body, of no danger for hours to anyone, must be instantly put off the train at the first station, even in the desert. This very thing happened, while I was traveling East with a patient and friend.

Along with the names of Lister, Pasteur and Koch, who have all done so much to influence the progress of modern medicine, and by true bacteriological research put it in the power of their pupils and successors to clear up many present difficulties and save many lives, must be mentioned the following contemporaries who each deserve much honor, viz.: Eberth, the discoverer, 1880, of the typhoid germ; Fehleisen, of the erysipelas coccus;

Laveran, of the malarial plasmodium; Nicolaier, of the tetanus bacillus; Hansen, of the leprosy bacillus; Loeffler and Klebs, 1884, of the diphtheria bacillus; Friedlander and Frankel, of the pneumococcus; finally Kitasato, the Japanese bacteriologist who had worked with Koch and with Nicolaier in 1892, studying the tetanus bacillus, has worked out the bacillus of the plague.

For years numerous workers have been trying to solve the question of immunity. The fact that animals and human beings recover from infectious diseases, and that one attack of some infectious disease protects for more or less of a lifetime against subsequent exposures, and in other diseases against a speedy return, led to the research for the method of cure and immunization against such diseases. It was left for Behring to study out and make public the demonstration that the blood serum in tetanus and in diphtheria contains a substance which has been called antitoxin, which in each disease has the property to so far antagonize the toxin of disease that if injected in sufficient quantity and strength, previously to or very shortly after the toxin of disease, will prevent the poisoning of the system by the toxin.

Because diphtheria is so prevalent and because of its severity and high death rate, the attention of the world has been concentrated upon it, and it has for the present overshadowed all other serum methods. Behring announced his discovery of antitoxin in 1894, and was soon followed in its use by Roux, of Paris, and the difference in their statistics compared with those obtained prior to the use of antitoxin produced a sensation. The names of these men are inseparably connected with this wonderful discovery, which, as the time goes on, is more highly thought of by those having the greatest experience in the use of it.

In this State, through the efforts of the State Board of Health the last Legislature appropriated $6,000.00 to establish a laboratory in connection with the State University, for the manufacture of antitoxin, but owing to the delay necessary for the preparation of the serum, it was decided by the State Board of Health to spend the money in buying antitoxin from the best makers and to distribute it at once *gratis* to the profession throughout California and thus make it possible for every one to have the immediate benefits of this wonderful remedy. Too much credit cannot be given these gentlemen for their judgment and efficient management of this question, nor could $6,000.00 have been better expended by the State. It has thus been brought within the reach of all without price. This treatment has been on trial in this country for more than a year, a sufficiently long time to be either accepted by all who have had enough experience to entitle their opinion to weight or to be discarded as worthless and unreliable.

In order to substantiate the claims of the opponents of antitoxin it is necessary to show that this serum does not overcome the poison of diphtheria, or that it is contra-indicated in the treatment of that disease. It is not at all astonishing that any new treatment or discovery should have opponents, but it is rather surprising that so eminent a specialist as Lennox Browne, of London, has condemned antitoxin in his recent book on "Diphtheria and its Associates." In this country, Winters, of New York, who has a large experience, is an opponent of antitoxin.

I do not believe that careful practitioners anywhere depend upon the injection of the serum alone in the treatment of diphtheria. It would hardly be possible to say how much was attributable to antitoxin in any one case, or that the child would or would not have recovered without the injection of the serum. One of the strongest proofs of its efficacy is its result in those cases of laryngeal diphtheria which are the most difficult to treat by other means.

The statistics of death rate from diphtheria and croup in Paris prior to and since the use of antitoxin are so favorable to the new method that until disproven, no other plan of treatment will be used. Wm. H. Welsh, of Johns-Hopkins University, confirms these reports in a paper based on a study of 7,000 cases treated by antitoxin. Corroborative evidence from so eminent a bacteriologist and such an authority as Welsh practically settles this question for most Americans.

In tetanus, fortunately a comparatively uncommon disease, and hence not equally interesting, the results of animal experimentation equal the success of diphtheria antitoxin. The longer tetanus has existed, the larger will be the amount of serum necessary and the longer it must be continued. The cases thus far treated give the hope that if treatment is begun early and continued, success will be proportionately greater. Statistics will have to be very carefully gathered to prove the real value of his remedy.

The organism and toxin of cholera have been used on animals, and recently Hafkeine, in India, has succeeded in proving a probability that he has immunized those exposed against the disease. Claims are made for the success of serum therapy in other infectious diseases, viz., typhoid fever, p neumonia, and recently in the suppurations and infections caused by the streptococcus.

There is much promise in this field, but our enthusiasm must not be allowed to run away with facts, nor must we claim too much. Time alone will tell.

Latterly a controversy has been going on as to the nature of carcinoma and sarcoma, one view being that they are results of unused embryonal tissue stored up in some part of the body, while the other is that they are due to some parasite, animal or vegetable, and those holding the latter view have endeavored to check the growth by the use of toxin of erysipelas, or serum of animals treated with such serum. Coley, of New York, is an enthusiastic worker in this direction and believes he has had some success, and read a paper on this subject at Baltimore, 1895, before the surgical section of the American Medical Association. One of the prettiest passages at arms I ever witnessed was the discussion of this subject between Senn and Coley. Senn disputed Coley's results, but Coley stood up manfully against the Chicago giant and claimed that his successes should offset Senn's failures.

Antiphthisin is one of the latest remedies for the treatment of tuberculosis and papers have been written about it and the results during the last year by Von Ruck, Denison, and the last by L. P. Barbour, and read by him before the Middle Tennessee Medical Association. November, 1895. This substance, from its method of preparation, is a modified tuberculin, and is claimed to "cause the destruction and disappearance of the tubercle bacillus in living tissue and the return of the proliferated and degenerated cells to their normal appearance." If such be the case nothing more can be desired of any germicide acting through and upon the blood. The earlier this remedy is used the better, the advanced cases may be benefited, provided the patient has a good degree of general health and not too great areas of breaking down. This treatment has supplanted tuberculin at Winyah Sanitarium, Ashville, N. C., under charge of Dr. Von Ruck. The author of paper quoted, Dr. Barbour, was a patient himself there as well as assistant physician, and his cases were afterwards treated in Tennessee. The results given are very promising.

The very latest treatment for consumption was announced in January, 1896, by Dr. Cyrus Edson, of New York, and is a soluble and more easily assimilable form of carbolic acid with hydro-chlorate of pilocarpin, and is called aseptolin. It seems rather odd that there was a considerable quantity already prepared for sale, when the announcement was sprung on the public by the blare of the secular press. However true this report may be, Dr. Edson has been good enough to print his formula so no one maker can control the monopoly of the preparation. The results of this cure will be watched with interest.

The predecessors of this latest alleged cure have all gone the same way—hot air inhalation, Bourgeon carbolic acid and sulphuretted hydrogen injection, and finally tuberculin. The latter is still used by certain physicians in selected cases with good results. The discoverer, Koch, is said to be working to secure its successful use. Nothing would so please the medical world as that Koch, who was hurried into announcing his discovery before he had proved its success, should succeed and receive credit for a successful application of his method and give the human race immunity from the disease which destroys as many lives yearly, almost, as all other diseases combined. He, instead of being one of the many scientific benefactors of mankind, would be crowned and placed higher than them all and justly so.

It is worthy of note how much more important bacteriology is to medicine each successive year. Formerly a side branch, now the basis of positive diagnosis. No one can be considered thoroughly educated now-a-days without a knowledge of this important branch of medical study; no hospital staff is now complete without its bacteriologist.

The entire scientific world has been thrown into a state of excitement in the last few months by the recent discovery of Prof. Roentgen, of Wurzburg, that shadow pictures can be taken through opaque objects, and in this way a new method of precision added to medicine and surgery. The medical and law press is filled with trials and experiments everywhere. Tesla claims to have known of this power two or three years ago and claims it is due to inaudible sound waves, not to electricity or ether waves. The terms radiography, skiagraphy, radiegram and skiagram have been given to this process and their productions. The process is not properly photographic, though a sensitized plate is used. If this method can be perfected and made practical and easily handled, a great assistance in diagnosis, especially in the surgery of doubtful cases, will be the result and wonders may be predicted. It would have a great medico-legal bearing. The Roentgen rays have shown no curative effect upon bacilli of various kinds, either inside or outside the body. As to the usefulness and limits of this discovery we must await developments and be in the same expectant position as the profession is to-day with respect to the curative methods for tuberculosis, patiently waiting and ready and willing to adopt and follow any proven advance or plan of treatment.

After a campaign of several years in England, antivivisection has lately been revived in the United States, and the Humane Society of the District of Columbia has had a bill "for the further prevention of cruelty to animals in the District of Columbia," introduced into both Houses of Congress, which was referred to the commissioners of the district. The editor of the *Medical News* well says the bill is misnamed, and should read, "a bill for the prevention of advance in medical science in the District of Columbia and for the prevention of the application of discoveries already made." This would be the result if allowed to become a law, and as it may be the beginning of a national movement it might as well be brought to a finish at the start, the sooner the better. The bill is too long to quote here, but the provisions are so restrictive and absurd in their claims and so much interfere with the liberty of scientific men and the progress of experimental physiology and medicine, that it behooves us all to thoroughly post ourselves and be ready to fight this mistaken idea of cruelty.

No argument is needed with professional men and women, but the public must understand this question, and the medical profession must see that it does and be prepared in every State to defend the present practice and liberty, which is, to pursue experiments in a truly scientific manner, which does *not* give *unnecessary* pain. If experimenters like Horsley, Ferrier and others had not been allowed to use animals in their laboratories, we should know very little of cerebral localization and many other every day practices of modern medicine and surgery. No one who knows anything of the men who give their lives and efforts to the advancement of science and life-saving methods can believe that they would give unnecessary pain to the animals they use for the benefit of man. In fact they, from the very nature of their experiments, are obliged to anæsthetize their subjects in order to perform the very delicate experiments they are pursuing. Even granting, for the sake of argument, that pain is given, in these laboratory experiments, to innocent animals, is not the end a sufficient justification? Do not these same animal pain preventionists go hunting and fishing and uselessly and needlessly give as much or more pain to their game with no object but their own pleasure?

The restrictions of the antivivisection bill would practically stop all original investigations in the physiological laboratories of colleges and of the Sanitary Department of the Government and the laboratories of the Agricultural Department at Washington, the largest station in the United States, where animal diseases are investigated for their prevention, would have to be abandoned. Without experimentation, antisepsis and the various methods for dealing with tuberculosis, diphtheria, cholera, pneumonia, and many other diseases would not be in use today.

One absurd clause in the bill before mentioned is that no animal experimented upon under anæsthesia shall be allowed to come from under influence of anæsthetic and live, if the operation should afterwards entail any suffering, which would prevent anything but immediate results from being observed. It is time to call a halt in the preventive measures, especially of those, who, from well meant enthusiasm, wish to reform the earth, but in so doing interfere with the liberties of others whose aims and efforts are as praiseworthy as their own. Progress necessitates certain liberties within proper limits. There are enough wrongs to be righted by the humanely inclined without meddling with laboratories where many of the greatest advances of the past thirty years have emanated from.

Since the bill was introduced in Congress the craze has broken out in Massachusetts, and a bill is to be introduced into the Legislature of that State, and so it will go over the country. The medical profession must fight such interference with their personal rights and in the interest of science and medical progress. The last accusation which can truthfully be made is, that the medical profession is careless about giving unnecessary pain. Its business is to save pain, and if the study of disease, its prevention and relief, thus saving human pain, causes some pain to some animals, does not the end justify the means?

There are a few suggestions I wish to make at this time and if the Society considers them of sufficient importance, action can be taken upon them.

1st. The importance of and the necessity for a new medical law which will be reported to the Society by the Committee on Medical Legislation through its chairman, than whom no one is more familiar with this subject nor more competent to make such a report. I only wish to ask your hearty co-operation and urge a campaign of education which is the only way to make the public realize present conditions and understand what the medical profession is really aiming at, not selfish interest, but public protection and public good. Our present law is very faulty and cannot be or is not enforced. The apathy of the profession and of the public is noticed by strangers, and the non-enforcement of the law as it is, is the means of bringing to our doors a very undesirable class of charlatans, who fatten in our midst. We may have laws enforced against other classes, but not against medical fakirs and pretenders. Unless the profession as a unit, backs such a measure and will work for its passage by the legislature, those most interested in its defeat will combine as heretofore and succeed. This is a political year and much can be done by the individual members of this society by influencing and pledging the legislative candidates before election to vote for the proposed revised medical bill.

2nd. The powers of boards of health of cities and towns should be increased by legislative enactment, and not as at present be merely figureheads with power of recommendation only and not of action. To be effective these boards should be more independent of local legislative bodies, composed of the best and most scientific medical men of the community, non-partisan, neither politicians nor their creatures, and appointed for fitness and experience only, and such appointment to be considered an honor. These boards should have the power to declare and abate nuisances where found, without reference to the legislative body, which is usually not well informed in sanitary matters. They should have money at their disposal for emergencies and for sanitary purposes and be held responsible for the proper expenditure of such a fund. Such powers should be conferred by a State law, general in its application, so that neither statutes, charters nor their technicalities could render the provisions of the said law operative.

3rd. As to expert testimony, the medical expert when called into Court should be paid in proportion to the value of his time, skill and ability, the same as other professional experts are. It is manifestly unjust that a medical man can be compelled to give up his knowledge, as any common witness, without additional compensation. In Illinois a bill has been introduced into legislature and will undoubtedly become a law, which California could well copy, which provides for the appointment by the judge of a court medical adviser and fixes the compensation at not to exceed $50.00 per day.

4th. Some plan should be devised to increase the membership in the State Society, which should have the majority of the profession for its members. Two years ago Dr. Kenyon, then President of this Society, offered some excellent suggestions and proposed a plan for increasing our membership, by either lessening our annual dues; by changing the provision requiring continuous membership in local societies as a *sine qua non* to membership in the State Society; by the publication of a quarterly journal instead of the annual transactions. No action was taken as I remember. The State Medical Society should be the means of uniting the local societies and the whole profession and thereby make it possible to effect reforms by the cohesive power of union and concentrated strength. We can never accomplish what we wish and believe to be right and best for the public without union, and the best union is the State Medical Society, the recognized official body of this great State. The average physician, impressed by the dignity and humanitarianism of his calling, takes too little interest in public matters, but it is only by active political methods and working together as a solid body that we can accomplish our aims and ends. The three thousand men and women of the medical profession of this State can do *anything* if their cause is just, if they work together and have patience and staying powers.

5th. I believe there should be a uniform standard of requirements entitling a physician to be licensed to practice throughout the whole United States, and that the general government rather than each State should regulate, supervise and conduct such examinations, as in Europe, as thorough and severe as those for the army and navy surgeons; that a diploma from a medical college should not be all that is necessary to legalize a practitioner. I wish to take this opportunity to thank Dr. C. E. Farnum, of San Francisco, for his recent article on this subject, which should be read and carefully considered by all, and I think this Society would do well to advocate such a plan as he has outlined and work for its adoption in this State. Only by examination by a government board could licenses be issued; foreigners and graduates from all classes of colleges would be put on the same basis and be obliged to pass examination before receiving certificates. This would have a tendency to prevent all quacks from flocking to the State with as low standard as now—one standard for all without regard to school or state. We must come to this sooner or later and national governmental control can be so exercised as not to clash with State rights, as in other matters of government. By such a plan only the best colleges could survive, education would be improved in every way; the examinations would be hard to pass, there would be fewer doctors and better ones, and the public benefited proportionately.

6th. Under the head of new business, I think it would be proper for this Society to take some action upon the reduction of the medical examiners' fees by two of the old line New York life insurance companies. This policy, if successful and followed by other companies, will have a greater effect than simply to reduce fees for such work, and will have a tendency to cheapen the best professional work in the eyes of the public. Few examinations in a physician's private practice require more time, care and thoroughness than is demanded by a first-class insurance company, so why should the examiner work at a reduced price, the requirements being the same? A society cannot prevent a member from working for half a former fee, but an expression of opinion from a large and influential State Society against such reduction will have more effect than that from county societies or individual members could. It is an attempt to force the best professional work down to a second-class level. If the medical examination is of so little importance, let the companies get along with second-class work. If two companies succeed in this bluff and economy others will follow. I believe our position will be better if we boldy and fearlessly declare our opposition and refuse to accept the reduced fees for the same work as heretofore.

In conclusion, my fellow-members, allow me to thank you for the honor that you conferred upon me one year ago, by electing me to this, the highest office in the gift of the Society, and thereby making it my duty to preside over this meeting. I have endeavored to conduct the work of the past year for the best interests of our Society. It is with diffidence that I assume the duties of your presiding officer, following in the wake of so many distinguished gentlemen, your former presidents, and I therefore ask your indulgence and assistance. If during the present meeting any ruling should seem arbitrary in limiting the discussions, you will not attribute it to a lack of courtesy, but to a desire, as your presiding officer, to promptly carry out the programme and finish the large number of excellent papers in the time allotted for our meetings. As the time is limited and there will be many distractions, I therefore beg of you to assemble promptly at the hours of opening of the sessions, and that each member will be on hand to read his or her paper at the time appointed. Only by so doing can our programme be completed.

It was then moved, seconded and unanimously carried, that the President's Address be referred to the Committee on Publication.

Dr. H. S. Orme, of Los Angeles, Chairman of the Committee on State Medicine, Hygiene and Adulteration of Food, read an exhaustive paper on the subject of

The Present State of Sanitation in California and its Most Urgent Needs.

The sanitation which steadily brings down the death rate, which increases the expectancy of life, which preserves healthy bodies in the interest of the State, which makes men live longer, is worthy of careful study and investigation. Information concerning the adulteration of foods, milk, etc., public water supply, the construction of our streets and highways, sewerage and the disposal of sewage, cremation, or the proper burial of the dead, disposal of garbage, etc., unhealthy occupations and trades, these, and the voluminous questions of nuisances, and a thousand of equally important subjects, have of right raised preventive medicine to the first position in social science. * *

In the great work of sanitation the first requisites are good and effective laws, plain, brief and pointed, so that they can be quickly and readily understood, then they should be fearlessly and intelligently enforced. Many of us have very little faith in moral suasion, in sanitary matters, especially in this age when liberty has become license. * *

In order to afford the members of this Society a correct view of the present state of sanitation in California, it seemed appropriate to obtain the testimony of those who have the best opportunity to be informed, and to state it in their exact words. And in pursuance of what I have said before, and to this end, I sent a list of questions to physicians, chiefly those connected with State and local health organizations. From an analysis of the reports sent in from different counties the following conclusion was reached, namely, that we do not need new laws so much as we need a more faithful enforcement of existing laws.

Discussion upon Dr. Orme's paper was postponed until after the reading of Dr. Perry's and Dr. Hansen's papers.

Dr. A. W. Perry, of San Francisco, read a paper on

Public Management of Epidemic Diseases.

In discussing this subject the author took the ground that our present methods for controlling the spread of epidemic diseases are of but little use; though excellent in theory, in practice they are so unsuccessful that they should be abandoned. He make the following statements: 1st. That the sick cannot be compelled to be removed to an isolated hospital. 2nd. A house cannot be successfully disinfected while occupied. 3rd. The inmates of infected houses will not remain in them until the period of incubation is over.

He proposed the following plan: The sanitary authorities may permit the patient to remain in his house if he so desires. All other members of the family, excepting those acting as nurses, to be kept isolated; if necessary, to make this complete, they should not be permitted to remain in the same house. If poor, the authorities should provide them with meal tickets at restaurants and with lodgings. If the disease has become well developed, the clothing worn by the other inmates should be thoroughly cleansed and destroyed.

He was also in favor of refuge homes, similar to those in England and Germany, where the unaffected can be provided for when contagious diseases prevail. He believed that infectious diseases are never "stamped out" by destruction of all the disease germs in a given locality. The benefit from well-directed sanitary measures is to delay the spread of an infectious disease until other preventive measures can be taken, such as distribution of preventive medicines, the removal of susceptible persons to distant places, cleansing of streets, sewers, areas, etc.; the inspecting and restricting of the distribution of bad food and water.

AFTERNOON.—DR. EMMET RIXFORD, of San Francisco, Chairman of the Committee on Pathology, read a scientific paper on "Protozoic Infection," a further study of two cases reported in 1894, illustrated with photographs.

The paper was discussed by DR. LASHER, of Los Angeles, and DR. D. W. MONTGOMERY, of San Francisco.

DR. D. W. MONTGOMERY, of San Francisco, spoke of "Erythema Caused by Mercurial Preparations." He gave the history of several cases to show the remarkable susceptibility to mercurial preparations which is found in certain persons.

DR. BEVERLY MACMONAGLE, of San Francisco, Chairman of the Committee on Gynecology, read an able and interesting paper on "Ectopic Pregnancy with Cases." He gave a description of its different forms, symptoms, position of tumor, differential diagnosis, the different methods of operation, also the time when the operation should be undertaken and the results of operation. The following summary closed the writer's paper: 1. Ectopic pregnancies are common in some parts of the tube. 2. Pain is an important and almost constant symptom. 3. A growing ovum must burst the tube. 4. Rupture must take place into either the peritoneal cavity or broad ligament. 5. When discovered, ectopic pregnancy should be operated on as soon as arrangements can be made for a careful and perfectly aseptic operation. 6. Exploratory incision is justified where there is a reasonable assurance of ectopic pregnancy. 7. Rupture into the peritoneal cavity with hemorrhage demands operation at once. 8. Suprapubic operation is the best in a large majority of cases. 9. Vaginal operations should be chosen in cases where one feels sure the tumor is walled off from above and can be easily reached from the vagina. 10. In doing the vaginal operation one should always be prepared to complete it from above in case of complications. 11. Early operation and removal of the tube, sac and contents will give the best results.

The discussion was postponed until after **Dr. H. Kreutzmann**, of San Francisco, had read his paper on

Consideration of Surgical Interference in Retro-displacement of the Uterus.

The writer dwelt upon the proposition that retro-flexion is not, *per se*, a disease, or a cause of disease; a healthy, movable, retro-placed uterus in normal surroundings has no significance whatsoever as a causative factor or for complaint or sickness, that it is merely an abnormality of position without any importance. He quoted from authors to sustain his proposition of the absolute harmlessness to the patient of this displacement when found in a healthy person. Aside from fixed retro-positions, from uteri placed at the same time backward and downward, treatment of the abnormal position is unnecessary and superfluous. Still, he confessed that we have to treat retro-displacements of the uterus even if we consider this abnormity insignificant to us, simply because this abnormity is not insignificant to the minds of our patients. Thousands of physicians yearly enter the practice of medicine fully imbued with the great importance of this very ailment and the public consequently considers "falling of the womb" as something most terrible. He did not believe it necessary for him to educate the public in matters medical. He treated retro-flexions hoping through rectification of the malposition to take the cause of worry and introspection from the patient's mind.

The writer then considered the different operations for the cure of retro-flexion. He said the number and kinds of operations devised for the radical cure of retro-displacements of the uterus are great and varied. Those which he found good and effective are ventrifixation, shortening of the round ligaments and vaginofixation. He did ventrifixation in fixed retro displacements and in such cases when for some other purpose the abdomen was opened. He preferred the abdominal route in order to get a good view of everything. The fixation itself he did by carrying through the uterus two or three threads which go through the peritoneum, parietes, muscle and fascia of the abdominal wall; the peritoneum is always united with a running stitch. In this way mobility is secured. The material for the sutures must be absorbable in cases where pregnancy is possible. When we deal with movable healthy retro-placed uteri the operation which answers best for all purposes is shortening of the round ligaments. Difficulty is sometimes experienced in finding the ligaments and pulling them out sufficiently and in anchoring them securely. The uterus is held in position, remains movable, no displacement of pelvic organs takes place, pregnancy is not disturbed, and delivery not aggravated.

To Dr. Schucking of Pyrmont, Germany, belongs the credit of having first done the operation of affixing the retro-fixed uterus to the anterior wall of the vagina by means of a specially devised needle which is carried through the cavum uteri, fundus uteri, and anterior cul-de-sac into the vagina. Injury to the bladder having resulted, Prof. Zweifel of Leipsig, advised to separate first the bladder from the uterus and push it out of harm's way. Drs. Mackenrodt and Duehrssen, Berlin, then conceived the idea of fixing the uterus to the vagina by introducing the sutures from the vagina, proceeding otherwise in the same manner as did Zweifel. The original Mackenrodt method consisted in stitching the uterus no higher than a little above the internal os without invading the cavum peritonei. He reported successful, *i. e.*, lasting cases. Duehrssen's original method was to get at the fundus uteri and stitch this to the vagina, carrying needle and thread through the peritoneal cavity without control of the eye. Both operators modified their operations greatly in the course of time, and finally to secure lasting results landed in opening the peritoneal cavity, between bladder and uterus, in each case doing what Martin, of Berlin, calls "koloptomia," and Duehrssen "vaginal cœliotomy," and fastening the fundus uteri to the vagina. The results as far as the retro-flexion is concerned were excellent, the uterus was surely in ante position and examined there.

The writer then reviewed the various operations which resulted in fixing the uterus in ante-position and keeping it there. But as far as the health and life of the patient goes, the results proved disastrous. Quite a number of the vagino-fixed women became pregnant and quite a number presented new and severe obstacles to delivery,—operations such as a Cæsarean section had to be done,—a new field for the obstetrician is opened through the restless energy of the gynecologist, a rather pleasing change from the usual *vice versa.* Certainly the question of vagino-fixation is settled, in cases where pregnancies are possible it is absolutely contra-indicated, but if we operate in women where pregnancy is out of the question, be it for removal of small tumors through vagina or for plastic work, vaginal fixation of a retro-placed uterus is perfectly justified. To sum up he would say, in movable small uteri he did shortening of the round ligaments, he did ventri-fixation in fixed retroflections or whenever the abdomen has been opened for some reason. Vaginal fixation he performed only in cases where pregnancy is out of the question.

[*To be continued next month.*]

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

The regular meeting of the San Francisco County Medical Society was held March 10th, 1896, President W. F. Cheney, M. D., presiding. The minutes of the last meeting were read and approved.

On account of the presence of several laymen who desired to be present and listen to Dr. Jones' demonstration of the X-rays, the Society voted to suspend the by-laws regarding visitors for the evening.

Dr. Geo. F. Shiels read an interesting paper on

Perityphlitis with Retro-peritoneal Abscess.

He gave the history of a case where the abscess was formed behind the kidneys and affected the lymph spaces, an operation resulting in saving the life of his patient.

Dr. Jules Rosenstirn, in discussing this paper, stated that the operation should not be delayed too long, it should be done while the disease is confined to the appendix.

Dr. Barbat said that the case was of particular interest to him since he had been a sufferer from a like condition. He believed that if he had been operated upon within the first few days of his sickness, he would have been saved many days suffering and would have been up in two weeks instead of two and a half months. In his case the sub-diaphragmatic abscess was tapped twice and finally operated upon.

Dr. Kenyon stated that he believed that all the best authorities were favorable to an early operation.

Dr. Kuhlman thought that this abscess had extended upwards from an original perityphlitis.

Dr. Bazet emphasized the point that too many surgeons want to operate at once and upon all cases of this sort. He queried if it would not be best to wait for the pointing of the abscess.

Dr. Dudley Tait took exceptions to Dr. Bazet's remarks; he asked the question, "Are recoveries the rule in operations on cases where general peritonitis is present?" Appendicitis is strictly a surgical disease and should not be trusted to the physician.

Dr. Davis discussed the terms peri- and para typhlitis. According to his definition, perityphlitis is an inflammation external to the peritoneum of the cœcum, while paratyphlitis is an inflammation of the post-cœcal tissues.

Dr. von Hoffman believed it a mistake to call cases appendicitis where really they are cases of paratyphlitis, the appendix being found normal. It is of the greatest importance that an exact diagnosis be made which is often not done. He believed that it is not best to operate unless we know quite absolutely what we have to deal with.

Dr. Rosenstirn stated that in 95 per cent of the affections of the right iliac region the primary cause is an inflammation of the appendix. These gentlemen who think that a peri- or paratyphlitis comes on without an inflammation of the appendix have not made the subject a special study.

Dr. Kenyon thought that if this was true then it made no difference whether it was peri or para. The object is to cut and cut at once.

Dr. Shiels stated that his case was one of perityphlitis, but the discussion had become diverted to the appendix. He did not see the appendix, hence did not know whether it was peri or para; what he did know was that the abscess lifted up the diaphragm and gave the impression of pleurisy. When the abscess was opened he bored through the diaphragm with his finger. He thought that the idea of cutting the minute a man has pain over McBarney's point is absurd and carried too far. This is a fad similar to that which has deprived thousands of women of their healthy ovaries. He believed in operating in appendicitis, but in this case he did not know that he had appendicitis; he did know that he had perityphlitis.

Dr. H. Sherman then read a paper on "Scoliosis, Its Etiology and Treatment," and exhibited a scoliosis press and other orthopœdic devises. By aid of a young lady the doctor demonstrated a number of instruments for securing tracings of the spine in various troubles and a system of gymnastic exercise used in scoliosis. The scoliosis press exhibited was made here, for a case, and was made hurriedly, but with numerous changes and additions it is now nearly perfect. Lawrence, of Vienna, was the first to get these presses up, together with Schroeder, of Hamburg. Now they are nearly universally used, both here and abroad.

Dr. P. M. Jones exhibited apparatus for demonstrating the X-rays, and gave a brief account of their discovery and results obtained by their use up to date. The demonstration proved to be of great interest to the Society.

After a vote of thanks had been given to Dr. Sherman and Dr. Jones for having made the evening so interesting, the Society adjourned.

Instantaneous Color Photography.

According to a cablegram to the New York *Herald*, a reported discovery by Dr. Selle, of Brandenburg, Germany, of a method whereby photographs in colors can be instantaneously obtained, is arousing great interest throughout Europe. Several patents, protecting methods of photographing colors, are already filed in Washington. All these patents, however, represent complex processes, while the great value of Selle's discovery lies in the fact that he obtains the same results from one instantaneous exposure.—*The Journal.*

Experimental Appendicitis.

Dr. Roger, on behalf of Dr. Josué and himself, showed the appendix vermiformis of a rabbit, which was killed three months after this organ had been tied under aseptic conditions. The part of the appendix isolated by the ligature had been transformed into a cystic pouch, no longer in communication with the rest of the intestine, and containing a thick pus which gave pure cultures of the bacillus coli.

This experiment proves that the bacillus coli, which lives in the intestine as an inoffensive parasite as long as there is no obstruction to the outflow of the normal secretions, becomes virulent the moment a stasis occurs, a suppurative inflammation having developed in spite of the fact that the vessels were carefully protected in placing the ligature and consequently no vascular disturbance existed. The purulent focus may remain latent without determining peritoneal reactions, but it constitutes nevertheless a source of permanent danger, since its rupture may give rise to subacute peritonitis.—*The Medical Week.*

Sections

MEDICINE.

In charge of SAM'L O. L. POTTER, M. D., M. R. C. P. L.

[In the last issue of this JOURNAL a brief account was given of *Tuberculosis Antitoxin* as prepared and used by Dr. Paquin of St. Louis and others; also of Prof. Klebs' *Antiphthisin*, a derivative of Koch's tuberculin. In this issue some other methods of internal treatment for Phthisis, old and new, are briefly mentioned.]

Aseptolin in Phthisis.—Under this name Dr. Cyrus Edson of New York has recently put forth a remedy for hypodermic injection in phthisis, malaria, and other germ-caused diseases, which consists of an aqueous solution of *Carbolic Acid*, 2¾ per cent, and a new salt named *Pilocarpine-phenyl-hydroxide*, 0.02 per cent. It is due to Dr. Edson to say that he disclaims for this remedy the virtues of a specific for consumption in any sense; but he does claim that its results "show a larger per cent of cures, and a more uniform improvement in the condition of the patients than can be credited to any other treatment at present known." Dr. Edson's remedy is being rapidly commercialized, or going through the trade methods of "pushing" its sale, hence all published reports thereon must be received with due allowance for the business enterprise of its promoters. It does not possess the slightest originality, for the carbolic acid part is only the old Phenic Acid injection of Declat, and the pilocarpine portion was announced over a year ago in Associated Press dispatches from Berlin, as the "discovery" of Dr. Louis Waldstein, who claimed by successive injections of *Pilocarpine* to produce a gradual stimulation of the lymphatic system, thereby increasing the number of leucocytes in the blood and reinforcing the natural bactericide powers of the blood against the bacillus tuberculosis. This is exactly what Dr. Edson claims for his remedy.

Bergeon's Cure for Phthisis was the centre of attraction about nine years ago. Briefly stated, it was the treatment of phthisis and other pulmonary diseases by rectal enemata of *Sulphuretted Hydrogen* gas diluted with carbonic acid gas. The former was afterwards abandoned by its author in favor of *Carbon Disulphide.* The most prominent physicians of every country took it up, and we read of Professors Pepper and H. C. Wood, of Philadelphia, administering gaseous enemata and varying this procedure with its administration by the stomach in carbonated water. Special apparatus was invented and extensively manufactured for the scientific administration of the gaseous enemata, but the method was soon abandoned in disgust. Humorous lay paragraphists pointed out that no apparatus was necessary if the patients were only required to eat plenty of Boston baked beans. It is said to be a fact that Professor Ewald actually presented this very idea in all seriousness, at a meeting of the *Gesellshaft fur innere Medicin*, at Berlin, on July 4, 1887.

Creosote and Guaiacol in Phthisis.—Creosote was advocated for phthisis by Reichenbach in 1833, and was revived by Bouchard and Gimbert in 1877, since which time it has been tried and approved by a long list of authorities, including Jaccoud, Dujardin-Beaumetz, Dieulafoy, Germain Sée, Sommerbrodt, Von Brun, Guttmann, Douglas Powell, Burney Yeo, J. Solis Cohen, Austin Flint, Beverly Robinson, and many others, who all agree as to its utility, though differing as to its mode of action, dosage, and the methods of administration. The number of cases dealt with by some of these observers is so considerable that there is at least strong *prima facie* evidence in favor of the utility of this drug and its derivatives. Bouchard reported 93 cases at first and more subsequently; Sommerbrodt's report included over 5,000, his observations extending over nine years; and Von Brun dealt with 1,700 cases in his paper on the subject. Guttmann had shown experimentally that tubercle bacilli could scarcely be cultivated in sterilized serum containing the one-four thousandth of its volume of creosote, and that the culture entirely failed when the solution was a little more concentrated. He believed that it was impossible to administer sufficient creosote to enable the blood to contain the above proportion, which would mean more than 20 grains therein at one time. Professor Sommerbrodt contends that it is possible to administer the quantity necessary to inhibit the growth of the bacilli, and believes that he did so in many cases. He had, however, the most gratifying success with this medication, and according to his experience the more creosote the patient could bear the better was the result. Of late years the tendency has been to administer *Guaiacol*, one of the ingredients of creosote in place of the latter; and during the last six years many clinicians have administered both these drugs hypodermically with very satisfactory results. Lepine uses creosote dissolved in oil, and finds that a much larger quantity may be used in this way than can be tolerated by the stomach. Picot injects a mixture of sterilized olive oil and vaselin containing 1 per cent of iodoform and 5 per cent of guaiacol, beginning with 1 ccm. of the mixture and increasing to 3 ccm. He states that no swelling or other local reaction follows this injection. Burney Yeo has used the same method with a more concentrated formula.

Iodine and Chloride of Gold in Phthisis.—This method of treatment, by the hypodermic injection of *Iodine* and *Chloride of Gold*, with inhalations of *Chlorine* gas, was practiced extensively about five years ago, by Drs. Gibbes and Shurley, Professors in the University of Michigan and the Detroit College of Medicine. During 1891 these gentlemen published in the *Therapeutic Gazette* an abstract of the clinical histories of 37 cases (of a series of 100) so treated, many of which showed most excellent results. This method has not been heard of lately.

The "Amick Cure" for Phthisis.—This is a secret and proprietary method, called "*The Chemical Treatment*" by its author, Dr. W. R. Amick, formerly Professor in the Cincinnati College of Medicine and Surgery, and Secretary of the College Faculty, who gave up these positions and also one on the staff of the Cincinnati Hospital to devote his time to the extension of his "cure." An outfit for a month's treatment is supplied to physicians at $10, to patients at $15, by the Amick Chemical Company, and consists of: "(1) Medicine in the form of a tablet for the purpose of supplying or increasing the elements that are being wasted and destroyed, and correct the faulty oxidization. (2) Medicine in the form of constitutional drops, which assists the tablets in the performance of their work, allays the irritative and inflammatory tendency, develops the resisting force of the system, and stops the useless expenditure of kinetic force. For allaying the local inflammation and irritation of the lungs we use an inhaler. It is simply palliative and does not remove the cause, but is indispensable as a part of the treatment."

Dr. Waugh, editor of the *Times and Register*, wrote of this system as follows: "The Amick advertisements appeared shortly after the publication of Dr. N. B. Shade's paper in this and other journals. Amick copied Shade's language, speaking of the 'chemical cure,' etc., and, I believe, adopted Shade's method of treatment. These were fully described by Shade, and consist in the use of Calomel, Iodoform, Guaiacol, etc."

Intra-pulmonary Injections were made the subject of a report by Dr. J. B. White, on cases so treated by him at the Charity Hospital, New York, in 1885. The method was originated by Dr. E. Frankel's experiments on rabbits by the intrapulmonary injection of olive oil solutions of carbolic and boracic acids, aluminum tartrate and iodoform. Dr. White began with 10 or 15 minims of a carbolized *Iodine* solution once a week, increased by 5 minims weekly until 40 minims are reached, which dose is then continued as long as necessary. He said of his method that "my confidence in it increases with my experience, and the results compel me to accord to it an established position among the legitimate means at our command of battling against this formidable foe!"

Mercuric Chloride was used in the same manner and about the same time by M. Gouguenheim of Paris, and shortly afterward several physicians reported the use of *Iodoform*, dissolved in ether, in olive oil and in oil of eucalyptus, by intra pulmonary injection.

An Ozone Cure for Phthisis has just been announced, according to the daily papers, by Dr. Erich Langheld, at the International Medical Congress at Wiesbaden. The name of this latest discovery is *Antimicrobia*, it consists chiefly of ozone and codliver oil, and is reported to have cured 90 cases of consumption at the Moabit Hospital in Berlin during the past year.

Californian "Cures" for Phthisis.—Our own State is not behind hand in this matter. One of our enterprising dailies has lately printed the picture of one of the clinicians of the city and county hospital as the inventor of a consumption cure, and through the efforts of the ubiquitous reporter columns of the journal were devoted to the description of how much better certain consumptives felt after taking the injection. At the same time there comes from Oakland the announcement that "Old Bill Reese" has found a consumption cure which will "discount all" others. Mr. Reese claims to have cured consumption with his medicine, which is composed of nine herbs, eight of which grow in the Contra Costa hills and must be gathered under certain conditions of the planets and stars, while one has to be imported from Peru, where some Indians told him of it when he was building railroads for Harry Meigs. As Mr. Reese does not sell his medicine, but gives it away to all who want it, his cure lacks all the elements of popularity except one, namely mystery. His office is not being filled with hopeful patients at $10 per consultation, and he has no committee composed of eminent professional colleagues to certify to his good standing, interview his patients and publish their feelings in the daily papers. Moreover, the Medical Society of the State of California has recently reprimanded in public one of its foremost members, for writing to an eastern correspondent that he had seen many cures of consumption in this "glorious climate." It is evident that there is need of the new woman or some other rejuvenator (say Brown-Sequard's remedy) among the members of that organization.

Other Methods in Tuberculosis which have had more or less prominence at different times are—the hypodermic injection of *Eucalyptol* (Bouveret); saturation of the blood with *Tannin* (Demarco) given by the mouth, as a means of checking the development of the bacilli; the method of *Hyper-alimentation* and the drinking of very large quantities of water (Burt), which, its author claims, will cure 50 per cent of all cases in their first and second stages; the method of *Sclerotising* the tubercular tissue in joints and other parts by using solutions of *Zinc Chloride* (Lannelongue); and the similar method by caustic solutions of *Calcium Phosphate* (Kolisher).

[In our next issue, the different methods of local treatment of the lungs by insufflation and inhalation will be considered.]

A New Anæsthetic.

Bellencoutre (*Jour. de Méd. de Paris*, December 22, 1895) suggests the use of a new anæsthetic, the oil of guaiac, in all operations on the eye and its appendages excepting those on the cornea and anterior chamber. The solution he employs is 1 gram of crystalized guaiac to 10 grams of sterilized olive oil. He introduces the needle of a hypodermic syringe into the part to be operated on, and while slowly withdrawing it deposits two or three drops of the solution into the tissue. Anæsthesia is produced in eight or ten minutes, and is continued twenty-five minutes.—*The Philadelphia Polyclinic.*

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SAN FRANCISCO, MAY, 1896.

Editorial.

CALIFORNIA STATE MEDICAL SOCIETY.

Like its predecessors of the past ten or a dozen years, the meeting of the Society held at Los Angeles the past month was a most forceful demonstration of the woeful lack of interest which the medical men of California take in their representative Society.

We refer more especially to the attendance, there being present at no session over 125 persons, including laymen,—the general attendance varying between 25 and 30 to 75 and 80 persons, a ridiculous showing even for our small membership of 400. We are not unmindful that a large number of our confreres live a long distance from Los Angeles, necessitating a journey of from 24 to 48 hours, this, however, is not a valid excuse for such a poor attendance. In the City and County of Los Angeles, with its reputed 500 physicians, and the nearly equal number in the rest of Southern California, a meeting of the State Medical Society should have brought out from that section alone; one or two hundred physicians having sufficient interest in the progress of medical education to have been desirous of hearing the papers and the discussions.

We trust that the low water mark in the affairs of our State Medical Society has been reached; if this be true, we may look for an upward movement from this time forward. We base our hopes on the fact that there appears to be a general recognition among its members that the California State Medical Society is not standing in the front rank, that it is not doing that work which alone can give a scientific society anything more than local recognition.

Our writers and investigators in the realm of medical science are of equal ability with individual workers in other States, but while this is true of individuals it is not true when applied to us as a body.

Our State Medical Society is not as it should be, a compact harmonious whole with but a single purpose, viz., to promote the advancement of medical knowledge. For the like reason that California as a political factor has less potency in the affairs of the country than the smallest Eastern State, so can we assume that our Medical Society does not command that respect from the outside world which should be accorded to us. The State Medical Society is not the only learned organization which has thus far failed to fulfill the expectations of its founders. That which has operated to lessen the respect of the great majority of our medical men and women in these societies has been an inability to realize that no combination of individuals ever succeeded in accomplishing any marked success except they worked together, whatever private grievances the individual may have should be kept out of sight, his energies should be exerted for the public good.

The position of Californians generally is well shown in this that when a good thing is proposed it is almost sure to be knocked in the head by those who fear that a few may derive benefit at the expense of others.

We shall not point out all the causes which in our judgment have operated to bring about the present condition of indifference toward the State Society in the profession. We undertake to prophesy that unless more attention is given to the purpose for which the Society is supposed to exist, and less to the political side; as long as members attend the session only when election of officers is to take place; as long as a large percentage of members who come to the Convention do not remain while the papers are being read and discussed; so long will it be before the Society will receive the good will, encouragement and support which ought to be accorded to it by every physician in the State. All who attended every session and heard every paper read and discussed, must be impressed with the truth of the statements. These remarks are not offered in a spirit of captious criticism, but in the belief that there is in our midst a tremendous amount of latent energy of sufficient potency to bring our State Medical Society up to the front rank if properly encouraged.

BREVITY THE SOUL OF WIT.

The papers read at Los Angeles were fully up to the general average of those read before other State Medical Societies, several were far above the average and merit careful reading and study. As a rule, however, they were too long. We should suggest that in the future but twenty minutes be given to the reading of any one paper. Should the writer have a longer article let it be condensed for presentation to the fellows. Ten minutes should be given to the one opening the discussion, and to all other participants five minutes. Many papers were not discussed for lack of time which had been unduly consumed on preceding papers. Several of the most interesting papers were read and passed without a word of comment. It has never been our fortune to witness a more business like adherence to a programme than we saw at the meeting of the Womans Congress in this city a year or two ago. Not one reader or speaker exceeded the limit set, the presiding officer followed the rule to the letter. Furthermore the audience set a good example by remaining quietly in their seats during the reading of each paper.

A rigid adherence to the above rule would greatly expedite business and keep the members interested. Only in this way can justice be given to each paper.

PUT YOURSELF IN HIS PLACE.

An old English poet has said, "A moral, sensible, and well bred man will not affront me, and no other can." Nevertheless we cannot lightly pass by without a word of comment, a very signal act of discourtesy publicly shown to the representative of this JOURNAL in his endeavor to procure abstracts of papers read at the late meeting of the Medical Society at Los Angeles. So palpable was the discourtesy that it was commented upon by several members seated in our vicinity. As we were making a few extracts, by the author's permission, from a very interesting paper which had just been read, the manuscript was taken from us under the plea that it was now the property of the Society. Since the representative of another journal had been permitted to have access to every paper read before this Convention it was most apparent that discrimination was being used against us.

We know of no law which says that after a paper has been read that it cannot even be seen by any one excepting members of the Publication Committee; should there be such an unwise law let it be enforced impartially or not at all.

Members of the Society who are not present look to the medical journals to obtain information of the proceedings and for epitomies of the papers read, as they do not care to wait several months for the proceedings. The State Medical Society having no official organ, preference should not be shown by its officials to one journal more than to another in this or any other matter which concerns the welfare of the profession. It is evident that neither the Society nor the authors of the papers would be injured in any degree by their publication in the JOURNAL, our efforts being solely directed to furnishing the profession with the news while fresh.

AN OFFICIAL STENOGRAPHER.

We are pleased to learn that the Executive Committee has recommended the employment of an official stenographer at future meetings of the State Medical Society. We hope that this plan will be adopted, for it does not look well for a society having $4,000 in the treasury to depend upon outsiders for a report of its proceedings which cannot in the nature of things be accepted as official. The State Society ought not to be under special obligations to any one member. The records should be open to every member for inspection.

MEDICAL DEGENERACY.

Before completing his book on Degeneracy, Nordeau could easily have added a chapter on degeneracy of physicians. The most marked example of this degeneracy is found among that class known as contract physicians who enter into competition with one another to treat the members and families of lodges and other fraternal orders. So keen is this competition that the average fee for a visit in many locations has fallen to ten or fifteen cents. To obtain an adequate idea of this particular phase of degeneracy one has but to consult the English medical journals, where we discover that many clubs pay but a penny a week for medical services. As stated in the *British Medical Journal*, "The doctor's remuneration has become by degrees less and less, until now it has almost reached the vanishing point." By a unanimous vote the California State Medical Society has taken a decided stand against all contract lodge practice. In placing a small value upon his services, the doctor furnishes a standard which the public very soon accepts as his own estimate of his own real worth.

INHUMANITY IN OAKLAND.

According to our esteemed contemporary, *The Pacific Coast Journal of Homœopathy*, there are human monsters living in that quiet little city over the bay. In the May number of that journal, a Mrs. Dr. C. V. C. Scott unfolds a harrowing tale. She tells how she snatched a moribund from the jaws of death and the clutches of an undertaker. But we will let Dr. Scott tell her own tale as follows: "I was sent for by a woman who was an intimate friend of the family, and who begged me to save him. I found the undertaker (who, with several other members of the Masonic Fraternity, had called to see him die) measuring him then and there for his coffin, to save coming a little later for the purpose. He worked under disadvantages, for the sick man writhed and doubled up his body, while he shrieked in agony from a pain in the pit of his stomach, which he described as being like a red hot iron burning through his spine." We do not quite understand why the "several other members of the Masonic Fraternity" did not hold this man or stretch him out and give the undertaker a chance to get the necessary measurements; that however is neither here nor there, what we wish to suggest is that Dr. Scott will report these Masons to the Grand Master of the Grand Lodge of California. It is probably not the first time those creatures have assisted at such an inhuman performance, and if not reported, it may not be the last. It is hardly necessary to say that the man did not die, and we might add incidentally that the patient was cured by Koumyss. We would further suggest that the case be reported to the President of the Society for the Prevention of Cruelty to Animals. General McComb might send Dr. Scott a leather medal.

CONSUMPTION.

We call the especial attention of our readers to the section in this number on the cures for consumption by Dr. Potter. It certainly shows great activity on the part of the profession, and that the tubercular bacilli need expect no quarter. This desire to find a remedy for an incurable disease is a worthy ambition, and one that deserves the encouragement of the profession. It seems strange that physicians above all others should captiously criticise the efforts of another physician who is sacrificing his time to so noble a purpose. The fact is, however, physicians do not trust each other, they are constantly doubting each other's honesty of purpose. Too often the motives of a physician's experiments are impugned and he is accused of a petty desire to advance his own interests. Experimentors must remember the fact that professional men of all classes are conservative; many of them are suspicious, and most of them are intolerant of weaknesses and methods in others which they possess themselves in a marked degree. Experiments in the line of scientific medicine, however, must be conducted in the interest of the profession and not to the galleries.

THE SANITARY CONVENTION.

If we were asked to state what, in our judgment, affords the strongest proof for our claim that there has been great progress in medical science the past hundred years, we should most confidently point to the great increase in the average length of human life during this period.

It is generally agreed that this increase in longevity is due to changed conditions of modern civilization, which means better housing, better clothing, better food, greater in variety and better prepared, and the greater number of hours devoted to recreation and sleep. The shortening of the laborer's hours with better remuneration for his work has also contributed largely to bringing about this great change in less than a century; in truth, the past forty years practically covers the interval which shows the most marked improvement in our life and modes of living. A new generation has come to the front, uncontaminated by the old traditions and memories, fully saturated with modern thought on how to live and how to get the most out of life. Our new women with their greater height, greater girth and fuller development tell the story of human progress much better than our words. Let him who will, long for the good old days of cold, cheerless, uncarpeted and undecorated homes, for the "old oaken bucket, the death-dealing bucket, which hung in the well," but give us the well-built, well-warmed, well ventilated, well-sewered, cheerful, tidy homes of the people of the present day.

Pure air, pure water, pure food and cleanliness which is practically free to all, make of living a pleasure. These evidences which we see everywhere about us of increased health, happiness and prosperity have been largely brought about through advancement in medical learning. When the doctor brought to the bedside of his patient a more profound knowledge of the human body in health as well as disease, when he discovered that the diagnosis and treatment of disease were as nothing compared with his discovery of the causes of the disease and its abolishment, he was led by natural steps to what is now known as preventive medicine, embraced under the larger term sanitary science. Under its banner have been enlisted not only its founders, the physicians, but the architects, builders and plumbers, as well as teachers of physical culture and manual labor. We have discovered that an all-brain boy or girl will not become as useful a member of society as the boy or girl whose brain is carried about in a healthy body. The general recognition of these truths is so evident that every subject connected with sanitary science is now put into plain language so that the humblest person may read and learn. Not the least benefit to our poor humanity has been the modern cooking schools where the daughters and their mothers can be taught side by side how to prepare food that may be healthful and palatable.

Our attention was drawn very forcibly to these questions which are now under such earnest discussion by sanitarians while attending the State Sanitary Convention at Los Angeles last month. The character of its proceedings were of such eminent practical value that their influence must be felt over the whole boundary of the State. These proceedings are to be published in full by the State and are free to all who care to read them. We have given an extended synopsis in this number of the Journal of the work done at this convention, which we hope will be carefully read and digested, for many valuable suggestions, which can be easily put to a practical test in every community and in every home, will be found embodied in these papers and discussions. The facts, theories and opinions herein given are by persons of experience and judgment.

The readers of these papers and kindred literature must be strongly impressed with the notion that in most cases, sickness is due to preventable causes; and that the question of preventive medicine is taking a foremost place in the thoughts of our advanced medical men, who, it must not be forgotten, were and are the leaders and promoters of modern sanitary science. In the no distant future typhoid fever and kindred diseases will be as uncommon as the presence of pus would now be in surgical cases; yet, but a half dozen years since and we were talking of "laudable" pus. To-day we talk of bacteria, micrococci and bacilli; we discuss the various methods for their destruction; we debate upon the different ways for purifying water before drinking and the sterilization of milk; we study the best methods for discovering the various adulterations in food and so on to the end of the chapter. The learned doctor of the future will not be he who writes a prescription, but he who is able to ward off disease; he who tells us how to conserve our vitality so that the greatest result may be produced with the least waste of nerve force.

The man with his hand upon the lever, or his finger pressed upon the electric button, possesses a potentiality far beyond anything ever before contemplated by the human mind. Within the past ten days the pressure of his finger has converted and set in motion for man's use, a force which for ages has been waiting for us to learn how to handle. The effects of this pressure were instantly felt in our city, 3,000 miles distant. In the roar of the cannon fired by this transformed and invisible force, was signalized to the world the fact that at last Niagara had been subdued by man, and its energies would be henceforth directed to assisting him in carrying on the world's work. In like manner the scientist looking through the microscope or patiently working in his laboratory also possesses a potentiality far beyond anything ever contemplated by our fathers in the art of healing.

It is then, we believe, to some good purpose that the study of hygiene and sanitation occupies so large a place in the public mind, for, without health, man's days will have no good in them, and the result will be only too soon a broken piece of machinery, which uselessly cumbers the earth; with health, his days will be days of joy, his work will be a pleasure, and contentment and happiness, without which all else is naught, will mark the closing years of his life.

SANATORIA.

Private sanatoria and homes for the treatment of surgical and medical cases seem to be in favor among the medical profession not only in this city, but in most American and European cities. No private residence is suited to the many delicate surgical operations that are undertaken by specialists for the cure and alleviation of human suffering nearly so well as a private Sanatorium in which all the scientific appliances are at hand to assist the physician and surgeon in the special line of treatment pursued. The absolute quiet, scientific nursing and watchfulness a private institution can give its patients are certainly beneficial in medical cases as well as in surgical ones. When a patient is ill it is often prejudicial to his case to have children and the usual inmates of his home about the sick bed, and in dangerous cases the constant care and medical attendance so essential to recovery can be had at a private sanatorium much more satisfactorily and much more cheaply than could be procured at home.

The absolute privacy patients enjoy in these institutions, where no one but the near relatives, attending physicians and nurses enter the sick room, is a desirable feature. Public hospitals are, of course, a necessity for the poor, but private sanatoria under competent management must prove a boon to suffering humanity, a great convenience to physicians and an important adjunct to the scientific medical and surgical treatment of disease.

Speaking of sanatoria, we had the pleasure of inspecting the Waldeck Sanatorium a few days ago in its new and elegant quarters, The Morris, at 717 Jones Street, San Francisco, which has been under the skilled and able management of Dr. C. E. Cooper since it was started some three years ago.

Among some of the special features of the Waldeck Sanatorium's new home we noticed the following: A solarium, where convalescents may have sun baths; next, a roof garden, where in fine weather they may have out-door air. Potted plants of many varieties adorn the roof, and the patients can enjoy themselves in hammocks and steamer chairs, and have an extended view at a high elevation above the noise of the streets.

The internal arrangements for patients are particularly complete. An electric call bell hangs over each patient's bed.

When she rings for a nurse the call is registered in the nurse's waiting-room upon that floor, and also upon the register in the office. By a system of return call bells, the nurse when answering the call, restores the annunciator to its first position and thus through the central office the detail work of the whole house can be supervised.

The ventilating system is one on which much care, money and thought has been bestowed, and consists essentially of an apparatus whereby the air is taken from a point above the roof, is then conducted to the basement and after being filtered is passed through a large fan driven by an electric motor. From this fan the air emerges in two conduits, one of which divides and subdivides until there is an independent supply of cool fresh air for each room. The second conduit leads to a heating box in which are coiled many hundreds of feet of steam pipe. By contact with this pipe, the air is heated to any desired temperature and from this box the air passes through distributing pipes so that each room also has an independent supply of warm fresh air. By means of a mixing damper, located seven feet from the floor in each room, the cold and warm air may be mixed in any percentage required, and the apparatus thus enables one patient to have a cold room while the adjoining room is maintained at an elevated degree of temperature. Each room has located at the floor line a second damper connected with a powerful exhaust for drawing off the impure air.

Each patient's rooms has facilities for medical electricity, electric lights and an automatic fire alarm. An entire wing of the building is set aside for laparotomy cases which are kept apart from all others. A new branch of work has been instituted in the bath department, where the arrangements will be found complete for mud, sulphur, salt, fresh and medicated baths. These baths will not be open to the general public, but will be administered upon the prescription of a physician only. It is understood that the bath department, as well as the entire sanatorium, is open to any reputable physician, and if he desires he can treat his cases there according to his own system.

The operating rooms constitute one of the best appointed parts of the institution. Lined with steel lath and coated with cement, with many coats of water-proof paint, the walls present an ideal surface for the purpose of which they have been designed, namely, an aseptic operating room. An elevated stand for consulting surgeons, a separate anæsthesia room, where the patient takes the anæsthetic and remains until its effects have entirely passed off, a private bath-room for the operator and an ideal light coming from north, south and west, are some of the minor advantages, while the modern aseptic operating tables, and an elaborate device for furnishing an unlimited supply of irrigating fluids at any desired temperature, together with another apparatus furnishing large quantities of sterilized water, both hot and cold, are some of the features which render this one of the best appointed operating rooms on the Pacific Coast. Sterilizers, driers, and all the minor paraphernalia are there to assist the surgeon in his work, while the attending nurses are trained especially for this most important branch of a nurse's duties.

Mention should also be made of the convenience provided for conducting the nurse's work through all parts of the house; an electric dumb waiter brings the food from the kitchen to all the floors above, and their waiting rooms are provided with filtered water, sterilized water, warm oven for keeping the food warm, sterilizers, an elaborate telephone system and speaking tubes giving communication to different parts of the house. At another point on each floor are located the linen chutes, the freight elevator and special appliances for cleaning and storing, at any temperature, all utensils used for the care of the sick.

We understand that it is the aim of the institution to eventually have a group of establishments located at different points in and about the city, of which the present one shall be the headquarters, and that the others shall consist of a country branch for convalescents, another for mental and a third for obstetrical cases.

THE LARYNGOSCOPE.

The prospectus of a new journal which is soon to appear under the above title, has just been received. This is to be a monthly journal of sixty-four pages, devoted to the Diseases of the Nose, Throat and Ear. The editors announce that it is to occupy a middle ground between the general and the strictly special journals, and will appeal to the general practitioner as well as to the specialist. This journal is to be published in St. Louis under the editorship of Frank M. Rumbold, M. D., and M. A. Goldstein, M. D. Subscription, $2.00 per annum in advance.

Licentiates of the California State Board of Examiners.

At a meeting of the Board of Examiners of the Medical Society of the State of California, held March 3, 1896, the following were granted certificates to practice medicine and surgery in this State:

Ballard, W. Harrison, Los Angeles; College Phys. and Surg., Ill., March 25, 1890.

Crandall, Alice Huff, San Diego; Omaha Med. Coll., Neb., March 21, 1884; Woman's Hosp. Med. Coll., Ill., April 5, 1887.

Lilley, Fred. E., Findley's Lake, N. Y.; Coll. Phys. and Surg., Baltimore, Md., March 10, 1890.

Lund, George J., Los Angeles; Rush Med. College, Ill., Feb. 21, 1882.

Matzke, Edith V. Hedges, Palo Alto; Woman's Med. Coll., Pa., May 8, 1895.

Winterberg, Walter H., San Francisco; Cooper Med. Coll., Cal., Dec. 5, 1895.

Wood, James B., San Francisco; Western Penn. Med. Coll., Pa., March 24, 1892.

At a meeting of the Board of Examiners of the Medical Society of the State of California held April 7, 1896, the following were granted certificates to practice in this State:

Brown, Oscar S., Wildomar; Starling Med. Coll., Ohio, March 4, 1886.

Campbell, Wm. H., San Francisco; Gross Med. Coll., Colo., April 8, 1890.

Douglass, J. F., San Francisco; Bellevue Hosp. Med. Coll., N. Y., March 14, 1887.

Eaton, Frank B., Portland, Or., Med. Coll. Pacific, Cal., Nov., 1875.

Fisher, John C., Lytton Strings; Long Island Coll. Hosp., N. Y., June 22, 1876.

Hartley, J. T., Antioch; Miami Med. Coll., Ohio, March 9, 1882.

Ives, Franthri B., Pasadena; Rush Med. Coll., Ill., Feb. 7, 1850.

Johnstone, E. R., San Francisco; Coll. Phys. and Surg., Keokuk, Ia., March 8, 1892.

Joyce, Herbert W., San Francisco; Lic. Soc. Apothecaries, England, March 13, 1893.

Kergan, Henry S., Oakland; Mich. Coll. Med. and Surg., Mich., March 29, 1894.

King, Jas. M., San Fernando; Coll. Med. Univ. So. Cal., June 4, 1895.

Kistler, Samuel L., Columbus, O., Starling Med. Coll., Ohio, Feb. 23, 1882.

Lee, Norman L., Junction City, Or., Med. Dept. Willamette Univ., Or., March 4, 1871.

Mathewson, Eugene, Bostonia; Gross Med. Coll., Colo., April 12, 1894.

McLean, A. D., San Francisco; Hosp. Coll. of Med., Ky., June 18, 1895.

Nathan, P. Wm., San Francisco; Med. Dept. Univ. City N. Y., April 17, 1893.

Osman, W. F. H., San Francisco; Jefferson Med. Coll., Pa., April 3, 1889.

Selberstein, Julius, Fort Apache, A. T.; St. Louis Coll. Phys. and Surg., Mo., March 10, 1891.

Stark, Mary E., Los Angeles; Woman's Med. Coll., N. Y. Infirmary, May 27, 1888.

Thompson, Fred., Sierra City; Harvard Med. Coll., Mass., June 27, 1888.

Chas. C. Wadsworth, M. D., Secretary,
518 Sutter Street, San Francisco, Cal.

REPORT OF THE STATE BOARD OF HEALTH.

By J. R. LAINE, M. D., Secretary State Board of Health.

Deaths.—Reports from fifty-nine cities, towns, villages and sanitary districts, aggregating a population of seven hundred and forty-two thousand nine hundred and ninety-five, show a mortality of one thousand and sixty-nine —a death-rate of 1.43 per thousand for March, or 17.16 per thousand per annum.

There were two hundred and four deaths from consumption, eighty-five from pneumonia, forty-two from bronchitis, one from congestion of the lungs, three from diarrhœa and dysentery, three from cholera infantum, forty-five from other diseases of the stomach and bowels, nine from diphtheria, two from croup, two from scarlatina, one from measles, eleven from typhoid fever, four from cerebro-spinal fever, forty-eight from cancer, two from erysipelas, one hundred and eight from diseases of the heart, one from alcoholism and four hundred and ninety-eight from all other causes.

Prevailing Diseases.—Reports from forty-six localities, outside of the larger cities and towns, give eleven cases of cholera morbus, two of cholera infantum, two of scarlatina, ninety-seven of neuralgia, fifty of pneumonia, ninety-six of bronchitis, forty-eight of diarrhœa and dysentery, eighteen of croup, one hundred and fifty-four of measles, sixty-eight of tonsilitis, fifty-four of pharyngitis, fifty of whooping-cough, eleven of cerebro-spinal fever, eighty-three of rheumatism, twenty of mumps, nineteen of pleurisy, twenty-two of congestion of the lungs, one hundred and thirty-eight of influenza, thirteen of erysipelas, eighty-two of malarial fevers, twenty-two of typhoid fever, four of diphtheria, and four of chicken-pox.

Measles reported as still epidemic at Red Bluff and Pasadena.

Smallpox.—Presumably stamped out in Southern California; nothing further being heard of the disease. The case reported from Napa is yet under observation, but no danger of its spread.

The *Medical News* says that the Psychological Laboratory at Harvard is the finest in the country, if not in the world. It also states that Dr. E. B. Delabarre, Professor of Psychology at Brown University has been appointed successor to Dr. Munsterberg as director. He will not, however, be obliged to give up his work at Brown.

Literary Department.

Under the charge of W. F. McNUTT, M.D., M.R.C.S., Edin., etc.
Professor Principles and Practice of Medicine in the Medical Department
University of California, etc.

A TREATISE ON THE DISEASES OF INFANCY AND CHILDHOOD. By J. LEWIS SMITH, M. D., Clinical Professor of Diseases of Children in the Bellevue Hospital Medical College, New York. New (8th) edition, thoroughly revised and rewritten and much enlarged. Handsome octavo of 983 pages, with 273 illustrations and 4 full-page plates. Cloth, $4.50; leather, $5.50. Lea Brothers & Co., publishers, New York and Philadelphia. 1896. For sale at Popular Book Store, 10 Post St., San Francisco.

Smith on Diseases of Children has become familiar to the medical profession and as a text-book for medical students. Under ordinary circumstances an eighth edition would only require a mere mention and need no introduction at the hands of a reviewer, but this eighth edition of Smith on Diseases of Children is almost a new book. Every chapter has been revised and rewritten and over one hundred pages of new matter added, with numerous new illustrations and several full paged plates. An entirely new feature of this edition is an introduction of several sections on the surgical diseases of children by the eminent surgeon Dr. Stephen Smith. This is as it should be and makes a new departure of great importance. There is no reason why every work on diseases of children should not include the surgical as well as the medical and every reason that it should. We hope this new departure will be followed by other works on diseases of children; in the meantime we most heartily recommend this eighth edition to the medical profession and as a text-book to medical students.

A MANUAL OF MEDICAL JURISPRUDENCE AND TOXICOLOGY. By HENRY C. CHAPMAN, M. D., Professor of Institutes of Medicine and Medical Jurisprudence in the Jefferson Medical College of Philadelphia; Member of the College of Physicians of Philadelphia, of the Academy of Natural Sciences of Philadelphia, of the American Philosophical Society, etc. Second edition revised, with 55 illustrations and three plates in colors. Philadelphia: W. B. Saunders, 925 Walnut street. 1896. For sale by Popular Book Store, 10 Post St., San Francisco.

We had the pleasure of recommending the first edition of this manual a couple of years ago, and are very glad to see that the profession appreciates the work by calling for a second edition so soon. The author has maintained the same system in dealing with the subjects and has added a bibliography bearing upon the statements originally made in the text of the work and also made an addition of several new figures and tables. We feel well satisfied that this second edition will fully sustain the reputation of the first.

ESSAIS DE NEUROLOGIE CLINIQUE. Par le DOCTEUR FERNAND LEVILLAIN. For sale by Popular Book Store, 10 Post St., San Francisco.

Under the above title the author, who is the physician in charge of the Establishment of Hydrotherapy at Nice, France, has collected the notes and observations taken by him in many cases of nervous diseases that have been under his direction, particularly cases of neurasthenia, to which he has devoted especial attention; and at the same time he gives concise but complete directions as to the methods of hydrotherapy in the treatment of these diseases, together with descriptions and lists of the principal water-cure establishments in France, Switzerland and Germany. The book is an extremely interesting and well-written work, of which a translation would undoubtedly prove welcome to English-speaking neurologists and general practitioners.

The author has divided his work into two parts. In the first he treats, in half-a-dozen chapters, of neurasthenia, pseudo-neurasthenia (as he terms many of those indeterminate neuro- or psycho-pathic conditions depending upon different forms of acute or chronic disease,—syphilis, diabetes, arteriosclerosis, dyspepsia, utero-ovarian troubles, etc.), and other or kindred forms of nervous disease. The alienist will read with pleasure the chapter on prodomæ or pre-organic forms of neurasthenia, and that on neurasthenia in its relations with melancholia. Another interesting chapter is that in which the points of similarity and difference between hysteria and neurasthenia are discussed.

The second part treats at length of hydrotherapy and kindred measures in the treatment of nervous diseases, *i. e.*, rest-cure, electricity, massage, etc. Among the descriptions of foreign establishments of hydrotherapy is found an entertaining account of the famous water-cure of Pastor Kneipp at Worishofen in southern Germany. The author's criticisms of the reverend Kneipp's theories and treatment of disease, though severe, are dispassionate and just.

One of the best and most recent works on medicine published in this country, in its chapters on nervous diseases, gives the following definition of neurasthenia: "This term, invented by

Beard, covers an ill-defined motley group of symptoms which may be either general and the expression of derangement of the entire system, or local, limited to certain organs." And, further on, the same authority remarks, "No hard and fast line can be drawn between neurasthenia and certain mental states, particularly hysteria and hypochondria." In the works of foreign neurologists, particularly those of the French school, we notice a marked difference in the manner of regarding neurasthenia. To them it is a distinct morbid entity, of which the cause, symptoms and course are far more definite than is allowed by our own writers,—a disease of which there is a common well-marked clinical type, that may be severe or mild, but is identical in its main or primary symptoms in the great majority of cases, however much it may be allied by its secondary symptoms to other forms of nervous disease. This distinct type of the disease, its main form, in fact, is specially insisted upon and most clearly described in the work under discussion, under the title of "Neurasthénie, type de Beard." Resembling conditions that do not fully answer to the description given of this type, are termed *neurastheniform*. In view of this difference in the appreciation of Beard's labors, we feel the force of the scriptural saying, that a prophet is not without honor, save in his own country, and in his own house.

W. L. ADAMS, Palo Alto.

A MANUAL OF OPERATIVE SURGERY. By LEWIS A. STIMSON, B. A., M. D., Professor of Surgery in the University of the City of New York; corresponding member of the Societe de Chirurgie, Paris, and JOHN RODGERS, JR., M. D., Assistant Demonstrator of Anatomy in the College of Physicians and Surgeons (Columbia College) New York. Third edition with 324 illustrations. Philadelphia: Lea Bros. & Co. 1895. For sale at Popular Book Store, 10 Post St., San Francisco.

This is the third edition of a very useful and comprehensive manual of operative surgery. The author found it necessary to rewrite the greater part of this work, on account of the many important changes that have been effected in the method of performing a number of the established operations, and the new operations have been added. The most important additions and modifications have been made in the surgery of the brain and of the abdomen. It was also found necessary or at least expedient to leave out of this edition many of the operations that have gone out of use. The paper, illustrations and print are all good. Altogether this manual is a most excellent one for students and busy general practitioners.

A HANDBOOK OF OBSTETRICS NURSING. For nurses, students and mothers; comprising the course of instruction in Obstetric Nursing given to the pupils of the Training School for Nurses connected with the Woman's Hospital of Philadelphia. By ANNA M. FULLERTON, M. D., Physician in charge of and Obstetrician, Gynecologist and Surgeon to the Woman's Hospital of Philadelphia; Clinical Professor of Gynecology in the Woman's Medical College of Pennsylvania. Fourth revised edition. Illustrated. Price, $1.00. Philadelphia: P. Blakiston, Son & Co. 1895. For sale at the Popular Book Store, 10 Post St., San Francisco.

We suggest to those of our readers who are engaged in obstetrical work, that they require the nurses to study carefully this hand-book. An ignorant nurse is a powerful instrument of destruction in the "lying-in-room," and is more to be dreaded than a pestilence that "walketh in darkness."

THE AMERICAN YEAR BOOK OF MEDICINE AND SURGERY. Being a yearly digest of scientific progress and authoritative opinion in all branches of Medicine and Surgery, drawn from journals, monographs and text-books, of the leading American and foreign authors and investigators. Collected and arranged with critical comments by J. M. Baldy, M. D., C. H. Burnett, M. D., Archibald Church, M. D., C. F. Clarke, M. D., J. Chalmers De Costa, M. D., W. M. L. Dorland, M. D., V. P. Gibney, M. D., Homer W. Gibney, M. D., Henry M. Griffin, M. D., John Guiteras, M. D., C. A. Hamman, M. D., H. F. Hansell, M. D., W. A. Hardaway, M. D., T. M. Hardie, B. A., M. B., C. F. Hirsman, M. D., B. C. Hirst, M. D., E. F. Ingalls, M. D., W. W. Keen, M. D., H. Leffman, M. D., V. H. Norrie, M. D., H. J. Patrick, M. D., Wm. Pepper, M. D., D. Reisman, M. D., Louis Starr, M. D., Alfred Stengel, M. D., G. N. Stewart, M. D., Thompson S. Wescott, M. D., under the general editorial charge of George M. Gould, M. D. Illustrated with numerous woodcuts in text and thirty-three half-tone and colored plates. 8 vo., cloth, pp. 1,183. Price, $6.50. W. B. Saunders. 1896. For sale at Popular Book Store, 10 Post St., San Francisco.

No book is more valuable to a busy practitioner than a good digest and this work is a most excellent epitome. It is well and wisely edited, and the collectors have arranged their information admirably. It is impossible for any one busy practitioner to look over very many journals and consequently he is unable to keep up with the advances that are being pushed in the many branches of our profession. It has required a great deal of intelligent labor to select and condense the contents of this volume from the enormous amount of material that had to be carefully looked over. It was not only necessary to separate the wheat from the chaff, but the best grains had to be separated from the lighter. Very few important discoveries of the past year have escaped the gatherers. The publisher has done his part of the work well, the illustrations are excellent. We are glad to have the opportunity of recommending this helpful intelligencer.

ATLAS OF TRAUMATIC FRACTURES AND LUXATIONS, with a brief treatise. By H. HELFERICH, M. D., Professor at the University of Griefswald, with 166 illustrations, after original drawings by Dr. Jos. Trumpp. For sale at Popular Book Store, 10 Post St., San Francisco.

AN ATLAS OF THE NORMAL AND PATHOLOGICAL NERVOUS SYSTEMS, together with a sketch of the Pathology, Anatomy and Therapy of the same. By DR. C. JAKOB, M. D., Practising Physician in Bamberg, formerly first Assistant in the Medical Clinic at Erlangan. With an introduction by PROF. DR. A. D. v. STRUMPELL. Translated and edited (authorized) by JOSEPH COLLINS, M. D., Instructor of Nervous and Mental Diseases New York Post Graduate Medical School; Visiting Physician to the Hospital for Nervous Diseases; Attending Physician to St. Mark's Hospital. New York: William Wood & Co. 1896. For sale at the Popular Book Store, 10 Post St., San Francisco.

The above are two of a series of Wood's Medical Hand Atlases which the publishers are issuing. The series are intended for students and also as reference books for the busy practitioner. The illustrations are not only faithful to nature, but are really works of art; "the plates printed in colors, some of them requiring twenty-one impressions of various shades and tints to secure the proper effects, have been prepared by one of the largest and most celebrated chromo-lithographers in Bavaria," and will certainly facilitate the student in acquiring an accurate knowledge of the descriptive matter. "The descriptive matter for each plate is always printed on the page facing it for the convenience of study." These hand-books make a royal road to knowledge.

The National Conference of State Boards of Health.

The eleventh annual meeting of the National Conference of State Boards of Health will be held at Chicago, Ill., June 10, 1896. All State and Provincial Boards of Health are invited to send delegates. Headquarters will be at the Auditorium Hotel, where rooms may be reserved in advance by notifying the manager of the expected time of arrival. The officers are: President, Dr. J. N. Taylor, Crawfordsville, Ind.; Vice-President, Dr. C. A. Ruggles, Stockton, Cal.; Secretary-Treasurer, Dr. C. O. Probst, Columbus, Ohio. Local Committee of Arrangements—Hon. Wm. R. Kerr, Commissioner of Health, City of Chicago; Dr. John W. Scott, Secretary, Illinois State Board of Health; Dr. Frank W. Reilly, Assistant Commissioner of Health, Chicago.

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Original Articles.

THE PART PLAYED BY THE INFERIOR ANIMALS IN LIFTING MAN OUT OF SAVAGERY.

By WM. E. RITTER, A. M., Ph. D.
Assistant Professor of Biology, University of California.

(The substance of a lecture delivered at the Veterinary College, University of California, March 4, 1896.)

There can be no doubt that the problem of the origin of man and the beginning and progress of civilization is, in large measure, a biological problem. Whatever else man may be, he is certainly an animal; and the nearer his primitive state we find him the more dominant appear the characteristics that mark him as such. The fuller our knowledge becomes of the savage races that now exist, or have existed within historic times, and the further into the dim past we trace man, the more convinced of this do we become.

On no point are the evidences of science more convincing than on this, viz.: that primitive peoples now living, and those that have lived in the past, are not the remnants of previously existing more highly civilized races; are not the products of degeneration. On the contrary, the various stages of civilization of the various peoples of the earth, past and present, have been attained by unknown ages of slow, struggling progress. Occasional exceptions to this there certainly are, but these exceptions furnish some of the very strongest evidence of the general truth of the affirmation.

The evidences of archæology are conclusive that man, the world over, gradually advanced from a condition in which the arts which he practiced were of the simplest, crudest kind, to conditions in which the works of his hand became more and more varied and perfect in response to the gradually growing needs of his life.

Since man is found to be more and more an animal the nearer we approach him in his primitive state, it ought to be profitable to study him in his origin, and in the dawnings of civilization, in the light of what we know about the inferior animals, particularly those to which he is most close of kin. It ought to be profitable to ask the same questions about his evolution and his early progress in civilization that we ask about the evolution of animals. Now, I trust I shall not be misunderstood in this. Because I say that we ought to study man as an animal, to study his progress in civilization by the methods which we employ in studying the evolution of animals, I am very far from affirming that study from this point of view would be adequate to settle all problems involved in his origin and progress; I do not believe this. At the same time I am thoroughly convinced that until these problems are regarded more generally and more sympathetically from this point of view than they are wont to be, they will not be fully solved And I take pains to go a little out of my way to assert here that until the harassing problems of the present civilized world are treated with a deeper insight into the nature of man's relation to the material universe, and with a keener sympathy for this relation, they will surely continue unsolved and harassing problems.

If now we are going to make use of the evolutionary history of animals to illuminate the evolutionary history of man, we must, of course, have a knowledge of animal evolution. The most immediately important knowledge of this kind is that pertaining to the group of animals of which man is himself a member, viz., the mammalia.

So far as we yet know the first animals of this class appeared on earth in the mesozoic era, or the era immediately following the age of coal. They were few in number, small in size and primitive in organization at that early time. This period is popularly known in geology as the "Age of Reptiles;" and so, indeed, it was, for the few mammals that existed were pigmies as compared with the giants of this class that were their contemporaries. Zoologists say of these primitive mammals that they were undifferentiated. They were more like one another in both habit and structure than are modern mammals. They were all more akin to the duck bills and marsupials of Australia than to any other living mammals; and it is well known that these stand at the bottom of the mammalian scale of organization.

When we pass to the next great geological era, *i. e.*, to the cenozoic or "recent" era, we enter the "Age of Mammals," indeed. The rocks of this era in all parts of the world have yielded mammalian remains in the greatest profusion in number, size and diversity, of both species and individuals. Indeed, some parts of the world, notably the western plains of the United States, present us a scene that is quite dramatic, so rapidly do the numerous and varied forms appear upon the stage only quickly to pass away and give place to others.

But numerous and varied in form as were the mammals during this time, it is of great importance for our purpose to note that although there were then herbivors, carnivors, primates, rodents, etc., as there are at the present day, these different orders were still not fully differentiated from one another. They were more like one another, *e. g.*, in the character of their feet and teeth, than are animals of these same orders now existing. It was not until comparatively recent times that the process of differentiation had gone so far as to produce animals of such distinct types as are our modern horse, lion, rabbit and elephant, for example.

We must now consider the differentiating process, so briefly sketched, for the purpose of discovering, if possible, something about its nature, something, possibly, of the causes that lay behind the processes. Then, afterwards, it will be our business to see what bearing the results may have on our subject proper, *i. e.*, the evolution of man and of civilization. To this end let me direct your special attention to the distinguishing characteristics of a few distinct types of modern mammals: take, for example, the horse, the lion and the rabbit. In the horse note these characters: his limbs so admirably adapted for supporting his body and for locomotion, but wholly useless for any other purpose; his teeth, the front ones, perfect cutters, the hind ones perfect grinders; and his lack of weapons, either of offense or defense. In the lion note these characters: His medium size, neither so large as to be bungling, like the elephant, nor so small as to be frail; his limbs powerful, less perfectly adapted for swiftness than are those of the horse, but serviceable for other uses than running, as, *e. g.*, for seizing and holding prey; and, finally, his teeth, some of them cutters, some piercers, and some tearers. The comparative smallness and weakness of the rabbit; his nimble legs, his chisel-like front teeth and grinding rear ones, you will particularly note.

Now, I ask you to call to mind what was said about the characters of the early mesozoic mammals: that they were all much more like one another than are modern mammals. There were no one-toed animals then like our horse and ass, nor two-toed ones like our ox, but they were five-toed all around. And they all walked down on the soles of their feet as we and the bears now do, and not on tip-toe as the horse and ox do. No animal had teeth set off so distinctly into cutters and grinders, for instance, as many modern mammals have. There was no such difference in size then as there is between the rabbit and elephant. These facts we learn from a study of the fossil remains of the animals found in the rocks. Interesting they are in themselves, certainly; but a thousand times more so do they become when we question them carefully in the light of what we know about the animals' living congeners. They tell us much about the manner of life that the animals led, and this gives us a most important clue to the problem that most concerns us, viz.: that *of the nature of the processes by which such diverse forms were produced from the few primitive types.*

By far the greater portion, probably ninety per cent, of all the activities of a wild mammal are concerned in some way, either directly or indirectly, with the food question. From our present standpoint it does not matter whether these activities take the form of efforts to capture food and to prepare it for conversion into force and tissue, or of efforts to escape from other animals by which they themselves are being pursued for food.

Now one becomes convinced by careful attention to the question that the structure of mammals is in as a large measure an adaptation to this function as the activities themselves are proportionate to all the activities of the animals. In other words probably ninety per cent of the characters distinctive of the various orders of mammals are adaptations to the nutrient function in one of its two phases, *i. e.*, to the function of food-getting, or that of escaping other animals that are in pursuit of food.

This, interpreted in accordance with the doctrine of evolution, on which we of course all stand, means that by many times the most important determinative factor in the struggle for existence is the actual struggle over the food question. Every one acquainted to any extent with evolutionary ideas knows this in a general way. But the full significance of it, and particularly for our present topic, is not so fully appreciated as it ought to be. We must look at the subject a little more closely.

Given a group of terrestrial animals constructed on the plan of the primitive mammalia, and it may, I think, be shown: (1) That the differentiations which have actually taken place among them, not only as to the carniverous forms, but likewise as to the herbiverous ones, are such as were in great degree predetermined by the fact that some of the primitive mammals became carniverous, *i. e.*, began to prey upon others of their kind for food; and (2) that had all these primitive mammals been and remained herbiverous, no such high degree of specialization as we now see within the class would have been possible; that man himself would not have been produced. In the brief time at my command I can do no more than draw attention to a few of the particularly interesting points connected with these propositions.

In the first place I would ask you to notice that the various types of organization of the modern mammalia are very largely expressions of different methods of adjustment to the pressure induced by this function. Look briefly, for example, at the strictly carniverous mammals. In this order we observe that those characteristics which would make an animal successful in his efforts to secure food are the same that would make him successful also in coping with his enemies. The sharp claws and teeth, the stealth, the quickness of eye and ear serve the cat as well for escaping its enemies as for capturing its prey. The result of this two fold service of the same set of endowments has not tended to produce great diversity of species among these mammals, but to intensify the characters of the species that have been produced.

On the other hand, the characters that make for success in food winning among plant eating mammals are not the same as those most useful for escaping enemies. The two factors have worked in different directions here, and hence have tended to produce great diversity of forms and many species. Take as an illustration of this the enormous difference, not only in size but also in structure, between a mouse and an elephant (both vegetable feeders), as contrasted with the difference between the most unlike terrestrial flesh-eating mammals.

Now in the tremendous struggle that was inaugurated when some of the primitive mammals came to depend entirely for subsistence on preying upon other mammals, every quality, physical and psychical, that was possessed by any animal in a degree that gave its possessor the least advantage in the struggle, was rapidly augmented. In by far the greater number of instances physical strength, agility, fleetness of foot, efficient weapons of offence and defence, were the ones of greatest immediate advantage. And so the high degree of physical specialization and perfection that we see for instance in the horse, the rabbit and the cat were produced.

But now observe this as a matter of prime importance for our present line of reflection, viz., that once *physical* specialization became well established as the chief advantage in the struggle, the reliance for success was chiefly on these qualities, the animals committed to this line of evolution were destined for all time to physical instead of to psychical supremacy. To ilustrate: Give a horse the intellect of a man, and what could he do with it? An intellect without a hand to execute would be a barren fig tree. And the horse's foot is such in structure that by no possible transformation could it be converted into an efficient hand. The specialization by which it lost four of the five digits which it originally possessed, made it of the highest efficiency as a locomotor organ, but at the same time robbed it of the possibility of becoming an efficient grasping organ.

But among all the various qualities that gave their possessors success in the struggle, psychical qualities became especially prominent in some primitive mammal at a very early time. For some reason, probably the dependence that was placed upon this quality, these primitive forms retained a relatively low degree of physical differentiation. This physical inferiority compelled them to rely more and more on their psychical qualities for success; and these latter qualities were in turn continually augmented in range and power because of the increasing dependence that was placed upon them. Their physical organization being relatively less specialized was relatively more plastic and consequently capable of being moulded in obedience to the behests of the intelligence. From such a type of mammal as this man was the final outcome.

It thus appears, you will observe, that relative physical inferiority was one of the essential conditions of man's emergence out of animality. This enables us to see why the purely animal mammals, *i. e.*, the mammals whose success in the struggle for existence depended primarily on physical qualities, were greatly dominant during the whole tertiary and quarternary periods, in fact up to very recent geological times.

Now just as we have seen that the carnivorous habit into which some of the mammals fell was one of the most important factors in the evolution of the class, so we must recognize with regard to man that not only was his evolution in considerable degree determined by the existence of an order of carnivora, as such, but also by the fact that he himself came to depend primarily on animal food.

The earliest evidences of man, as man, *i. e.*, as an animal endowed with an unquestionable creative intellect, are the exceedingly simple stone weapons which he made and used for hunting. In other words the earliest efforts of the human intellect were exercised on the food problem, just as the leading physical efforts during all the course of animal evolution have been made in connection with the same problem.

We may sum up our argument to this point by saying that whatever characteristics, physical or psychical, animals have come to possess they have been literally driven into by the inexorable struggles over the food problem. And this conclusion applies to man, so far as his emergence from animality, and his beginnings in civilization are concerned, as strictly as it does to the inferior animals.

Let us now see, looking still from the biological standpoint, what the early stages of man's advancement in civilization reveal. We have already pointed out that human intellect first becomes visible in its efforts to supplement man's bare animal endowments for capturing prey. The first contriving and executing done by primitive man consisted in the making of weapons for killing prey. Evidence of this is found in almost all parts of the world.

The advantage gained by man when he had thus artificially armed himself, was certainly enormous as compared with his previous wholly unarmed condition. It was not yet, however, very great as compared with the superior strength, fleetness, and endurance of the wild beasts that were his chief competitors and enemies.

But at length he took another step forward, and as it seems to me one of the most important in the long series that finally resulted in his complete victory in the struggle, so far as this phase of it was concerned, that finally established his full dominion over his brute enemies and competitors. This step consisted in his beginning to turn to his service the forces that before had been his enemies; against which he had previously been obliged to contend. He began to master and direct to his own ends the destroying forces of physical nature. *This he did first by domesticating the large mammals.* Whether his earliest attempts in this direction were to the end of making use of these animals for food; or for making them help him in hunting does not matter greatly. It is quite certain that he made use of them in both ways at a very early time. From the employment of them for either of these purposes, to using them as burden-bearers would be a natural and easy step, and undoubtedly one that was early taken.

In his first efforts at agriculture, commerce, and other industrial arts, two methods of supplementing his own inadequate physical strength were possible for him. One was the making of machines that would utilize the inanimate forces of nature, the other was the employment of brute animals. In point of time the latter method was probably the one usually first resorted to. It was the one that lay closest at hand, and the one that would require the least exercise of intelligence. Undoubtedly the two were very early combined; but it cannot be doubted that the latter must have been of very great relative importance at the beginning

From all that has been said we are obliged to conclude that it is difficult 'to see how man's ancestor could in the first place have become even a savage; and in the second place, having become a savage, could have advanced to any considerable extent in civilization, had it not been for the dumb beasts.

THE Supervisors have been carefully looking over the City and County Hospital with a view of making needed repairs. We understand the Board of Health is urging the necessity of new buildings. As the buildings are detached one would think that the wisest plan is to repair the best wards and build one or two new ones if necessary; one new ward could be built each year, which would make it easy for the tax-payers. There is no more convenient and better place on the peninsula for the hospital than where it is.

DISCISSION FOR SECONDARY CATARACT.

By LOUIS CHAS. DEANE, M. D.,
Adjunct Professor of Otology and Ophthalmology, Post Graduate School,
Medical Department, University of California; Oculist and Aurist
to Crocker Old People's Home.

The operation of discission for secondary cataract has been a subject of more or less discussion among oculists for a number of years. This can be accounted for by the unfortunate number of destructive sequelæ which only too often follow in the wake of this operation, despite its apparent simplicity.

It was only in May, 1892, in the *Annals d'Oculistique*, that Trousseau, of Paris, mentions that the gravity of the discission of the secondary membrane is even greater than the extraction of the lens, for out of four hundred and fifty-three cases of the former, he saw iritis only twelve times, while in thirty-one discissions he observed iritis ten times, and he mentions two cases of panophthalmitis despite the most extreme antiseptic precautions. Wecker's experiences were similar at this time.

Before entering upon a description of the operative procedure, a few words in regard to the primary removal of the lens matter and the changes the remaining capsule undergoes in the following weeks or months might be of interest.

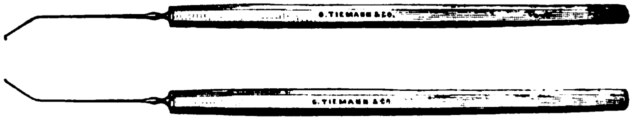
The size and shape of the incision made in the anterior capsule at the time of removal of the lens has an ultimate bearing on the operation of discission which may follow. A number of methods have been and now are in vogue. There is the capsulotomy performed by de Wecker in his three millimeter flap operation for cataract, in which he makes two incisions upwards, one directed inwards and the other outwards and ends by finally making an incision around the upper periphery of the capsule, connecting the two primary divisions and passing beyond them.

There are also the T-shaped and + ×-shaped incisions made at different parts of the capsule, some performing them high up where the lens is to present, and some including the whole capsule, allowing the lens to easily slip into the anterior chamber, and especially is this so if an iridectomy has been previously done. There are the straight capsulotomies made horizontally at the superior portion of the capsule and practiced as a rule with an iridectomy.

Read before The San Francisco Society of Eye, Ear, Nose and Throat Surgeons, March, 1896.

Small portions of the anterior capsule have been removed with an especially designed pair of forceps, and the lens delivered through the opening thus made. This latter has been devised to prevent the necessity of a subsequent discission of the capsule, but practically it has not met with much success. The removal of the entire capsule, including the lens, is seldom performed, except, possibly, in an over-ripe cataract with a thickened capsule. The dangers and difficulties which follow this last procedure need not be mentioned.

The capsulotomy which I have especial reference to in this article is that practiced by Dr. Herman Knapp, of New York. To preface what I am about to say, I might remark that with this capsulotomy an iridectomy is seldom performed except in the case of a complication already existing or arising during the operation. A peripheric incision is made parallel to the superior border of the lens, two millimetres from the equator and almost equal in length to the corneal incision which is made exactly at the limbus, the latter, of course, varying according to the size of the lens. This can be performed with a straight cystotome but is more easily executed with a bent shank, Fig. I, which allows the blade to be passed through the pupillary area and behind the iris, thus permitting the cutting edge of the instrument to point in the direction towards which the incision is being made, without disturbing the iris. The cystotomes are bent in opposite directions according to which eye is to be operated upon, and which hand is to be used. There are a number of advantages gained by this incision made with this instrument:



1st. The eye and the relation of its parts are comparatively undisturbed.

2nd. The incision thus performed does not come in contact with the posterior surface of the iris as it is made some distance from the pupillary border, where the iris does not touch the capsule at any time. This has a two-fold advantage: first, there are no posterior synechia liable to occur, but more importantly it is made without the pupillary area and no scar tissue is thus formed to finally become thickened and opaque, to obscure the sight and lessen the chances of a discission instead of a delaceration, which latter, unfortunately, is too often practiced, accompanied with its dangerous consequences.

3rd. The section here made corresponds in size and shape with the corneal incision, thus allowing the lens to be delivered through the corneal opening in the same position as it leaves the capsule.

4th. The largest opening is made in the capsule with the least amount of cutting.

There are other advantages, but I have only mentioned those which have a direct bearing on the discission and its ultimate success.

After the lens is removed, what condition have we now existing? The capsule shutting off the vitreous from the anterior chamber, its posterior portion is intact, stretching itself across the pupillary area. Upon this rests the incised or possibly lacerated anterior capsule, whose free edges are wrinkled and curled upon themselves, and may be inclosing, with the aid of the posterior capsule, small particles of cortical lens substance. As time progresses, the anterior capsule becomes adherent to the posterior, possibly encysting this previously retained lens matter. At the free edges cicatricial tissue is formed, which contracts and thus distorts the whole into an *irregularly thickened, wrinkled and distorted membrane*. This is made worse by the process of sclerosis which continues in this membrane. As we see a Morgagnian cataract with a thickened capsule, so here we observe an over-ripe capsule, left behind to continue with the work the lens commenced.

The encysted lens substance does not, as a rule, interfere with vision, as it occupies a part behind the iris and gravitates to the lowest point. The other conditions mentioned are included within the pupillary area and come under our direct observation. Then there may exist the occasional sequelæ which follow an extraction, such as posterior synechia attaching the capsule to the iris, laceration of the Zonule of Zinn, iritis, iridocyclitis, etc.; which all tend to make the usual condition more complicated. It must be remembered that the state of the capsule which I have described is not of sudden onset, but progresses gradually from the time of the primary extraction into years that follow. It thus stands to reason that the sooner a discission is performed after the removal of the lens the less resistance will be offered to the knife; by this I mean, after allowing a reasonable time for the corneal incision to heal and the eye to recover from the shock of the first operation, say from four weeks to three months. The fact that the cicatricial bands, not having thoroughly formed, they can be severed if necessary. It is thus apparent that the early performance of the discission favors the chances of a *cutting* operation instead of a *tearing* one, which is undoubtedly the indirect cause of many, failures.

The object to be gained in a discission is to cut an opening in the lens capsule sufficiently large and central to admit of the entrance of uninterrupted rays of light, without pulling on the ciliary bodies, stirring up the vitreous or losing the aqueous.

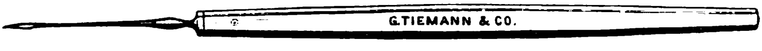
The operation that Dr. Knapp practices seems to meet with all these requirements more completely than any other I have seen or heard of, and the fact that he has had such a vast experience with such incomparable results, lends a charm and influence to his success that cannot be lightly overlooked.

The Operation.—Several days before the operation, a mild mydriatic is used in the form of one or two drops of a 4 per cent solution of cocaine and the pupil dilated. The patient is then taken in the dark room and the capsule carefully examined for bands, wrinkles, thickened and sclerosed parts and points of greatest traction. This is most thoroughly accomplished by throwing the light with a convex lens on the capsule at about an angle of 70° with the optical axis, bringing it to a small focus directly on the capsule, avoiding the corneal surface to prevent any reflex from them which would preclude a clear vision of the parts beneath. I will refer to the light again as a most important factor for the success of this operation. An accurate drawing of the capsule is now made, showing the relative positions of the parts mentioned above. This sketch is examined later and a plan for the operation is now made. The question is, " where is the best place to make an opening without attempting to sever one of the thickened bands (which, I might say, in many cases, is impossible to do without pulling on the ciliary body), and where we can utilize the points of greatest traction to assist later on in drawing the opening apart."

First, the Wrinkles.—These, as a rule, run parallel to each other and especially is this so, if there are few thickened bands that interrupt and distort their course. *What is their significance?* They show the direction in which the greatest pull is made on the capsule. To make an incision at right angles to these, would be to make an opening whose edges would be drawn apart and gape. There apparently would be an opposite effect if the cut were made parallel to these, though this may be done after, or in conjunction with, the first. A good practical demonstration of this, is with the rubber dam of the dentist; drawing it in one direction, thereby producing a corrugated surface; pin it thus to a board, now make your incisions as I have described and note the effect.

Next the bands and thickened points.—These are to be avoided, if possible, but occasionally they so fill the pupillary area that they have to be severed in some way, according to their thickness and extent, and the time they have existed from the advent of the primary extraction; they can be severed in one of two ways: *First*, if they are not to prove too resistant, the knife being inserted, the point is passed beneath it, the blade being turned upwards and a slight sawing movement is made, even using the endothelial layer and Descemet's membrane as a cutting block, in preference to pulling on the ciliary processes. *Secondly*, if the bands are old and thick, the knives can be introduced in opposite sides of the cornea, inserted in the same point in the capsule, and by directing the blades in opposite directions and bringing the handles together the knives separate, thus making an opening; this latter is nearly always a laceration, but as it is performed with two points drawing upon each other, little pulling is done on the ciliary body. If this be not possible, it passes beyond the range of a discission operation and a cystectomy or an irido-cystectomy may become necessary. There are many small points thus to be considered; as no two secondary membranes are exactly alike, so each operation has its characteristic individual features. Beyond my own personal experience with this operation, I observed Dr. Knapp perform seventy-eight discissions for secondary cataract, and I have seen no two cases that were, or could be, treated exactly alike.

Dr. Knapp claims that in order to secure a termination which would be almost invariably successful, a cutting operation is necessary, and what cannot be cut, should, if possible, be left alone. To secure this end, he devised a knife needle (Fig. II.), which in reality is a minute scalpel, razor ground. A short description of this instrument and its salient points of advan-



tage as compared with instruments of an older pattern would not be out of place here, for it is upon this instrument that the success of his discission operation largely depends. It is made in four sizes by Tiemann of New York, and is numbered from 0 to 3. The blade of No. 1 is about four and one-half millimetres long by two-thirds of a millimetre wide. No. 2 is less than a millimetre longer and slightly broader. The double cutting edged instruments of Bowman, Beer, Scarpa, and numbers of others, show the disadvantage of having convex or possibly plane ground surfaces. The narrow width necessary for these instruments, with their double grinding does not admit of their being razor ground, which we all well know is the most approved way of producing the sharpest cutting edge. The single cutting edge of the knife needle of Knapp, presents a sufficient width to the cutler, so that he can with facility grind a concave surface. The length of the instrument has to be taken into consideration. The long and slightly curved cutting edge of the knife needle, as compared to the diamond-shape of the double needles formerly in use, shows its advantage immediately, when a slightly sawing movement is required to possibly sever the last shred of a thickened band. The size of the shank as compared with the knife is a point of consideration, to prevent the escape of aqueous during the operation, or on withdrawal of the instrument. Shanks that are larger or smaller as compared with the size of the knife, both have their disadvantages in this respect. An extended consideration of this matter would be out of place in so limited an article. I have tried a very few experiments in this line at different times on animals' eyes under different states of pressure, but I have seen enough to convince me that the size of the shank has much to do with the escape or retention of the aqueous in the discission operation.

The knife needle of Knapp resembles in some respects that used by Hayes a number of years ago, but the large size of the latter would make it more fitted for a discission upon a horse's eye than that of a human being.

The disadvantages of the *escape of aqueous* during or following the discission is well known to oculists. Such a mishap does not necessarily harm the prognosis for an ultimate good result, but the possible contraction of the pupil from mechanical causes, on escape of the fluid in the anterior chamber, necessarily has its drawbacks. The capsule is pushed forward by the vitreous, and there is tension brought to bear on the ciliary processes; also it is forced in close contact with the iris, which favors an iritis or irido-cyclitis. In short, the eye is put upon a strain and the relations of its parts distorted, which, taken together, is one point in favor of a bad prognosis.

Just previous to the operation, four minims of a four per cent solution of cocaine are dropped in the eye at intervals of five minutes. The hair and skin surrounding the eye is washed with soap and water, the lids everted and gently brushed with a mild antiseptic, and we are now ready to proceed, having carefully re examined the drawing of the capsule made on the previous day.

The operation is usually performed in a dark room, with an Argand burner placed at a distance of about eight feet. The head is inclined to almost a horizontal position, and an assistant, with a lens of a diameter of 5″ brings a small focus on the capsule, at an angle of about 65° with the optical axis of the eye, being careful to keep the rays beneath the center of the cornea, to avoid a reflex and obscure the accurate detail of the parts beneath. Even with this precaution, it is sometimes necessary to shift the chair about to get a more perfect picture.

The knife is entered, cutting edge up, in the horizontal meridian of the cornea, about midway between the center and the outer limbus. The entrance point of the cornea is used as a fulcrum for the movements of the knife; the blade is inserted in the capsule and brought upwards, or carried horizontally, or swept around to describe an arc of a circle, so as to take advantage of the points of least resistance and where an opening can be most effectually made.

At the Eighth International Ophthalmological Congress at Edinburgh, Dr. Knapp reported four hundred and two discissions performed by him between the years 1890 and 1894, and it will be seen by the following statistics that he has greatly reduced the dangers of this operation.

In the *first series* of sixty-four cases of discission, vision was materially improved in sixty. In two of them vision was slightly diminished by floating opacities in the vitreous and anterior chamber; the other two were followed by acute glaucoma, cured in one by eserine bringing vision from 20/100 to 20/20, in the other with an iridectomy which restored the sight from 20/200 to 20/20.

In the *second series* of seventy-seven discissions, as in the first, no eye was materially damaged. In one case an old lady of eighty years and very myopic, acquired 20/20 by the operation, but afterwards got detachment of the retina by excessive travelling; her other unoperated eye had a complicated cataract with total detachment of the retina. A second case had a traumatic cataract with an infected wound, in which there was no improvement from discission, and the eye was finally attacked with irido-cyclitis. A third case received no benefit, as the eye had had a prolapse, and the pupil was drawn up. There were two cases of acute glaucoma and iridectomy resorted to, bring vision in one case to 20/40, and in another to 20/20.

In the *third series* of seventy-two discissions, in only two cases was vision slightly diminished, four and six days after the operation was vision tested, and surely it would improve as the vitreous cleared up. In one case there was an acute glaucoma which by an iridectomy, on the seventh day brought vision to 20/30 as before, with a probable 20/20 later.

In the *fourth series* of sixty-eight discissions, one was followed by irido-cyclitis, vision before the operation was 20/70, after 5/200, which later on rose to 20/50, so vision was finally increased in view of the adverse circumstance. Three cases showed signs of increased tension, but all were cured by eserine. Glaucoma followed fifteen months after a discission, but an iridectomy restored the eye to its normal tension with vision 20/100 as compared to 20/200 before the operation.

Fifth series of sixty discissions. One was not improved as the opening was insufficient. In one case there was a transient diminution of vision, 20/70 to 20/100 on the fifth day, vitreous not having cleared up. One case of acute glaucoma cured by an iridectomy, vision 20/50,in eight days 20/20. One patient had vision 5/200 (remnants) improved to 20/30 in six days, but went home before irritation had disappeared, got acute glaucoma, and was treated by some one with atropine, came back in two months with +T and excavation of the optic disc, an iridectomy cured the +T but did not improve vision.

Sixth series, sixty-one discissions. One case of acute glaucoma on third day. Eserine and posterior sclerotomy afforded little relief. The iris could not be drawn out with a blunt hook. vision was raised from 4/200 to 20/50 in ten days. His other eye was previously operated on and had an acute glaucoma after discission, which disappeared in a day, vision in twelve days from 20/200 to 20/40. In one case vision was not improved from 20/40 where a piece of capsule adhered to the puncture scar.

In the six series above, each represents the discission of one hundred cataract operations or four hundred and two discissions performed after six hundred cataract extractions. Acute glaucoma seems to be the only sequel of the discissions mentioned that has any persistency, and it is always practically curable by either eserine or an iridectomy. Of the eleven cases mentioned in the above series, four were cured by eserine, six by iridectomy, and one failure through neglect of the patient, though vision was improved after discission. Dr. Knapp only mentions this case and one previous to this, in his entire experience, that was destroyed by glaucoma.

STATE CARE OF THE INSANE.

By E. W. KING, M. D.,
Medical Superintendent of the Mendocino Asylum for the Insane.

Since California became one of the States of this great Republic, it has been her policy to care for indigent insane, to consider them wards of the State, thus taking at once an advanced position in the humanitarian policy of giving this most unfortunate class of our citizens proper care and treatment.

This subject has become manifestly a matter of great importance to the State, not alone from the fact that immense sums of money have to be regularly appropriated for care and maintenance, thus placing a heavy burden upon the tax-payers, but also from the fact that there seems to be a steady increase, from year to year, of the insane to the sane population. Dr. F. B. Sanborn, of Massachusetts, in a very able paper read before the Twenty-second National Conference of Charities, states that in England and Wales the insane population increased from 25,000 in 1849 to 90,000 in 1894, while the sane population for the same period only increased from 16,000,000 to 31,000,000; that is the insane population nearly quadrupled, while the sane population hardly doubled. The same authority states that in Scotland, in 1859 the number of insane to each 100,000 inhabitants was 192, and that in 1894 the number had increased to 325 in every 100,000. In Ireland, with a population of 5,798,960 in 1862, there were 8,055 insane, and in 1892, the population having decreased to 4,704,750, yet the number of insane had increased to 16,689.

The population of the State of New York was in 1890, in round numbers, 6,000,000, and according to the reports of the State Commission in Lunacy of that State, the number of insane October 1st, 1890, was 16,006; this number has increased, October 1st, 1894, to 19,088, or a net gain of 3,082. It is hardly possible that the sane population had increased in the same ratio. In 1890 there was in New York, one insane person to every 370 of the inhabitants.

California also has a similar history of a steady increase of the percentage of the insane population to the sane. On December 31, 1895, there were 4,500 insane on the rolls of this State. In this number are included, however, a large number of idiots who ought not to be classed as insane. In the year 1867, the proportion of the insane to the sane in California, was one to 560; in 1886 this proportion had increased to one in 360, and in 1895 to one in 305. These facts show that at least there is a strong probability that in all civilized countries there has been for some years, a steady increase in the proportion of the insane to the sane population.

Without stopping to inquire into the causes which have produced this grave state of affairs, it is a condition which must be met. These unfortunates must be cared for and this can be done more economically and with better results by the State than in any other way. California stands to-day in the front ranks in this humanitarian work. I think that I am correct in saying that this State was one of the first to accept the idea that the State should care for its indigent insane. This has been the policy of this State from its earliest history, and I can safely say that no State in the Union has cared for this unfortunate class of its citizens more humanely or with better results.

After a long conflict in the State of New York, between those who are in favor of the principles of State care for the insane and its opponents, the former have finally triumphed and an effective law has become a part of the Constitution of that State, thus putting it out of the political influence of the State legislature.

In the fifth annual report of the State Commission in Lunacy of New York for 1894, I find the following succinct history of this conflict: "The first day of October, 1893, will witness the final and complete fulfillment of the hopes and efforts of philanthropists and humanitarians in behalf of the dependent insane, for a period of nearly sixty years. In 1836 came the establishment of the Utica State Hospital, and the recognition by the legislature that the insane should be wards of the State and cared for apart from the inmates of its poorhouses. The time was not ripe for the consummation of this humane idea, and only a few of the dependent insane were cared for by the State. A period of twenty-five long and weary years, not only to the wretched insane who were languishing in the poorhouses, but to those who had their interests at heart, to elapsed before the second State Care era was inaugurated by the passage of the act to establish the Willard State Asylum in 1865. While much was accomplished by this second step, and suffering humanity became a greater gainer thereby, the principles of State care were not fully recognized, and still another period of a quarter of a century was to elapse before its complete fruition was reached, and thousands of the dependent insane were still to be retained in the poorhouses. In 1890 the third and final effort to secure State care for the insane was successful;" and this time it became a part of the organic law of the State.

During the last few years the State of New York has made many changes in her method of caring for her insane, some of which the State of California might adopt with benefit.

Transportation of the Insane.—In the State of New York, the authorities of each State hospital are required to send as many trained attendants as may be necessary to transfer patients after their commitment to the asylum. It was found in that State, that previous to the adoption of this system, much fraud was perpetrated against the State by the county, town or city officers in overcharging, and the Commissioners assert that much money is annually saved to the State by the new system.

It is evident that the insane would be much better cared for by trained attendants who know how to manage them than by those who are not familiar with this class of cases. If this system could be adopted in this State it would eliminate a constant source of friction existing between the county officers of the different counties and the State Board of Examiners, as well as save much money to the State, and at the same time place the unfortunate insane at an earlier date in charge of skilled attendants. In New York, as in this State, female patients must be attended by female attendants.

Uniformity of Asylum Laws.—There can be no difference of opinion as to the advisability of a general law governing the fiscal concerns of our asylums; the equalizing of salaries, advertising for supplies and many other matters pertaining to asylums, which should be made uniform. For instance, there can be no good reason why the supplies for all of the five asylums in this State, cannot be advertised for at one and the same time, and annually instead of semi-annually. It is self-evident that a contractor could bid lower, if he could have an opportunity to furnish all of the asylums, for a year, than if he were to furnish only one-fifth of the amount for six months. There would also be a great saving to the State in the cost of advertising. Under our present system, the State pays in for advertising for supplies over $2,000 annually; whereas if there were but one advertisement a year the cost would not exceed one-seventh of that amount.

Cost of Buildings.—In California we have five asylums, with a capacity not exceeding 5,000 when completed; certainly not too many for the number of insane population, which at the present times exceeds 4,500, and is steadily increasing. It is the universal opinion of nearly all alienists, who have had an extended experience in the management of the insane and of asylums, that for the best interests of recent cases at least, not more than 1,000 patients should be congregated under one management. I have not the data to give the exact cost of these institutions, but I think it is safe to say that it is above $1,000 per bed, exclusive of furniture. Too much money has been expended in ornamentation.

Older and more populous States have, however, made the same mistakes in this matter. As an illustration, the nine asylums in the State of New York, outside of New York and Kings Counties, cost $11,517,400.00 for buildings and grounds, with a capacity of 9,232 patients, or a per capita cost of $1,247.00.

Immensely costly structures, with elaborate ornamentation are not necessary for the proper care and treatment of the insane. Buildings for this purpose should be plainly and substantially built, perfectly adapted to the purpose for which they are intended, and at the least possible expense to the taxpayer.

New York has discovered her mistake, and under the State Care Act passed by the legislature in 1890, the cost of buildings for the care and treatment of the insane in that State was restricted to $500 per bed.

Insane Criminals.—In California, as in other States, there are at the present time quite a large number of insane criminals. As no provision has been made for them in the penal institutions of the State they are sent to the asylums to be cared for. This is certainly wrong; it is an insult and injury to those poor unfortunates who have lost their reason to mix them with criminals. The asylums of the State are not constructed to confine criminals, and, as every superintendent of an asylum knows, it is almost impossible to prevent an insane criminal from escaping. The State Commission in Lunacy, of New York, says, in regard to this class of insane: "The insane convict, as a rule, is constantly bent on effecting his escape from custody. This is especially true of those who have committed crimes against property. Not infrequently his native cunning and ingenuity are seemingly intensified by his mental disease."

That a properly constructed building should be erected in this State, at an early date, at or near one of the State prisons, I think will be admitted by all who give this matter a careful consideration. It ought to be done as a matter of justice to the non-criminal insane, as well as a matter of safety to citizens, as certainly no more dangerous person can be at large than an insane convict. The buildings need not necessarily be costly; it would cost very little for grounds, and all supplies could be drawn from the commissariat of the prison.

Aliens and Chinese in Our Asylums.—There were, on January 1st, 1896, about 160 insane Chinese in the asylums of this State, not one of them paying a cent for support. The entire cost to the State, annually, including their transportation to the asylums, amounts to about $30,000.

I am unable to ascertain how many aliens there are on our asylum rolls exclusive of the Chinese just mentioned, but the number is much larger, probably, than the number of Chinese.

In the State of New York a special committee of two has been appointed to ascertain if any aliens are cared for by the State, and if so, to return them to their homes at the cost of the State. These same officers are authorized, and it is their duty, to ascertain if the relatives of any insane person, cared for by the

State, are financially able to pay for his support, and if so, to collect from them the amount necessary for such support.

If the aliens on the asylum rolls of this State were returned to their homes and those who are able to pay, and liable on account of their relationship, were required to pay for the support of their insane relatives, the number on our asylum rolls would be considerably reduced and the amount now paid on account of so-called pay-patients would be largely increased. It is conceded that the expense of sending an alien to his home would be considerable, but very little in comparison to the yearly expense of his care and maintenance. Take the Chinese for an example, the whole number could be returned to China for one-fifth of what it costs annually to care for them.

In California, under the present system of management of asylums by local boards, much excellent work has been done, and at a very reasonable cost per capita. The following table compiled from the reports of 70 different asylums in the United States previous to the year 1892, shows the cost per capita of these institutions.

Alabama	$.33				
Arkansas	.43				
California	.42	average	in	3	asylums.
Connecticut	.43				
Delaware	.35				
District of Columbia	.63				
Georgia	.32				
Illinois	.42	“	“	2	“
Indiana	.47	“	“	2	“
Iowa	.56	“	“	2	“
Kansas	.44	“	“	2	“
Kentucky	.37				
Louisiana	.45				
Maryland	.54				
Massachusetts	.50	“	“	3	“
Michigan	.47	“	“	2	“
Minnesota	.58	“	“	3	“
Missouri	.54	“	“	3	“
Mississippi	.38				
Nebraska	.70	“	“	2	“
Nevada	.49				
New Jersey	.47				
North Dakota	1.09				
North Carolina	.61	“	“	2	“
New York	.77	“	“	9	“
Ohio	.44	“	“	5	“
Oregon	.39				

Pennsylvania	.50	average in 2 asylums.
Rhode Island	1.47	
South Carolina	.35	
Texas	.43	" " 2 "
South Dakota	.63	
Vermont	1.04	
Virginia	.38	" " 3 "
West Virginia	.34	
Washington	1.19	" " 2 "
Wisconsin	.37	" " 2 "
Average per capita	.53	

Of the above number, 13 asylums have a lower per capita than that of California, and 52 are higher than California; 37 States are represented. From this it will be seen that the cost of care and maintenance of our unfortunate insane has been much below the average of the cost in other States, showing conclusively that able and conscientious executive ability has been exercised in the management of the finances of these institutions.

One of the dangers which threaten to impair the efficacy of the management, and the usefulness of the asylums of the State, is the constant menace from political influence and interference. These institutions have been erected by the munificent liberality of California, for the care and treatment of a most unfortunate class of our citizens, who have, by reason of misfortune and disease, been deprived of their reason. Certainly some general law could be formulated by the wisdom of our law makers, which would place these institutions beyond the reach of political intrigue and influence. This could be done by providing for the appointment of medical officers for State Asylums, only after competitive civil service examinations. These examinations should be open and competitive, and the standard of eligibility to such examinations should be sufficiently high to exclude incompetent persons.

The State of New York has adopted such a course, and a very high standard; and under the rule now in operation in that State, applicants for examination for the position of superintendent, must have had five years actual experience as a medical officer in hospital work; applicants for the position of first assistant physician, must have had three years experience, and applicants for junior asssistants must have had one year of similar experience. Selections for appointments must be made from the three highest on the list of those who have passed the examination in that class. From this it will be seen that the medical officers of an asylum in New York can be selected only from those who have had ample experience and have proved by their examination that they are competent.

In New York, as in this State, the appointing power is in the Board of Trustees of the asylum, who also have the power to remove for cause, and the reason for such removal must be given in full, and placed upon the minutes of the asylum. The other members of the medical staff of an asylum are appointed by the superintendent, who must select them from those who have passed a similar examination as himself, and from the three highest on the list. The State Commission in Lunacy have made the superintendent entirely responsible for the management of the institution under his charge, and in their report of 1892 and 1893, have given their reasons, which I quote as follows: "The experience and observation of years have only strengthened the previous views of the Commission, that the responsibility in the appointment and discharge of subordinate officers should be definitely fixed and undivided, in order to secure the best results. In all other governmental departments, the validity of this principle has been repeatedly demonstrated.

"Where the concurrence of two or more persons is required to appoint and discharge, conflict of authority, and shirking of responsibility are inevitable. So far as the State hospitals are concerned, the Commission is of the opinion, that while the power of the appointment and discharge of the superintendent may properly be vested in the Board of Managers, the power of appointment and discharge of all officers and employees below the superintendent, excepting possibly the treasurer of the board, should be absolutely vested in the superintendent. The superintendent is the executive, and hence the responsible head of the institution, and his authority in the matter of selecting his subordinates, should be commensurate with that responsibility. The reasons for the discharge of any resident officer or employee, must be entered upon the records of the institution."

If California were to adopt this or some similar method, it would not only ensure able and efficient management in the asylums of the State, but it would remove the asylums out of the reach of political influence, and in case of bad management or unsatisfactory results in any asylum, it would be easy to fix the responsibility and to make the necessary corrections.

CLIMATOLOGY AND DISEASES OF PLACER COUNTY.

By R. F. ROONEY, M. D., Auburn, Cal.

(Read before the State Medical Society, Los Angeles, April, 1896.)

CLIMATOLOGY.

Topography.—Placer County, like *omnia Gallia* of our schoolboy days, is divided in three parts. The plains, the foothills, and the mountains. Each subdivision has climatic peculiarities of its own, and a corresponding variation in its diseases.

The Plains.—The plains form the western portion of the county, and are a part of the great Sacramento Valley; and the climate is similar to that prevailing throughout that low-lying and fertile region.

The Foothills.—The foothills include the central portion of the county, from where the wooded land meets the plains, to about the limit of the nut pine—*Pinus Sabiniana*—or an altitude of 2,000 feet. This includes the great fruit-growing belt, and contains the greater part of the population of the county.

The Mountains.—The eastern portion of the county is mountainous, and includes many high peaks of the Sierra, and a portion of Lake Tahoe, within its boundaries. The Central Pacific Railroad traverses the county from end to end, and at Summit, where it crosses the backbone of the Sierra Nevada, the altitude is 7,017 feet. Some of the peaks have an elevation of 10,000 feet.

Railway.—From the fact that the railway thus traverses the county, from plains to mountain tops, the invalid is enabled to choose any climate that may suit his individual case, from the heat of the sun-baked plains, to cool retreats amidst almost perpetual snow.

Sources of Information.—But it is to the foothill climate that I must chiefly confine myself in this paper, and more especially to that of Auburn, because I have only the weather records of this place to draw from. In the following tables, which have been compiled from the records of the railroad company, and from some carefully kept by one of our town papers for several years, there are some things missing, which are very important, but which can not be supplied; such as barometric pressure, relative humidity, etc.

The Wet Bulb Thermometer.—One of the most important things lacking, and, unfortunately, it is lacking in all our Coast weather records, is the reading of the wet bulb. The Coast has always rested satisfied with the common standard of the whole country, both East and West, whilst the fact is that a reading of 90 degrees of temperature at the East means oppressive heat, and danger from sunstroke, whilst on our Coast (away from the immediate seacoast), it means comfort. Take the reading of the ordinary thermometer as the apparent heat, and the reading of the wet bulb thermometer as the actual, or sensible heat, and what a difference there is in a dry climate like ours!

Sensible Temperature.—An apparent reading of 90 degrees at New York, means a sensible temperature of about 85; whilst on this Coast, if the mercury climbs up to the neighborhood of 100 degrees, the sensible will be about 75 degrees; or about one-fourth lower, in hot weather. It is easily demonstrable that the human body is a *wet bulb thermometer*. The sensible and insensible perspiration keeps the skin moist at all times; and the *sensible* temperature is the one in which we exist, or, in other words, the one we realize. Thus we understand why it is that continual high temperature, such as exists at Yuma and through our great internal valleys, is not obnoxious to human life. Such high apparent temperature as exists for months at Yuma, would destroy both man and beast in New York City in three days. And yet the citizens of Yuma scarcely complain unless the mercury climbs above 110 degrees. This is especially true for our summer months. During our winters the variation is less marked.

Dry Climate Antagonistic to Germ Life.—Besides the direct effect of our dry climate in adding to our personal comfort, it is directly antagonistic to germ life, and to the propagation of tuberculous diseases. Its stimulating effect upon the capillary system is favorable also in affections of the kidneys.

Population.—The population of Placer County at our last census was 15,000, but is now, probably, about 18,000. As will be noted later, our hospital reports include large numbers of non-residents. This class actually predominates amongst those suffering from diseases of the respiratory organs.

Soil.—The soil of the plains is a dark, alluvial deposit, of greath depth, gradually getting coarser in character, and changing in color, as the foothills are approached. The underlying rock of the foothills, to an altitude of about 800 feet, is granite, and the soil is chiefly a sandy loam, very rich, and constantly renewing its fertility by the disintegration of the bed-rock. Its color is a dull, brick red from the presence of iron. The remainder of the foothill belt, to its upper limit, overlies an argillaceous slate; the latter very much decomposed. The soil is entirely composed of the disintegrated bedrock, mixed with the vegetable refuse of centuries of growing plants and trees. It is very rich, and is also constantly fertilizing itself by continual disintegration. It is a bright brick-red in color, very rich in iron. The mountains have a similar soil up to an altitude of 4,500 or 5,000 feet, where the primary igneous rock comes in; in some places diversified with large deposits of lava.

Vegetation.—The plains are destitute of timber, excepting along sloughs and streams, where there are scattering oaks and willows. The foothills are lightly timbered on the lower levels, gradually getting heavier as altitude obtains, until from 1,000 feet upward, the pines and oaks become a forest. The mountains are pine covered, but the larger trees have been cut off to a great extent for lumber and railroad fuel.

Water.—The plains are dependent upon the winter rains for crops, and upon deep wells for water for domestic uses, and for stock. The foothills have abundance of pure mountain water, supplied by irrigating ditches, heading high up in the mountains, besides good springs, and wells in plenty. The water in nearly all localities is pure, soft, and healthy for use.

Mineral Springs.—There are numerous mineral springs in the county, none of which have been exploited, except the Summit Soda Springs, which lie at the head of the North Fork of the American River. The water of these springs is highly extolled as being beneficial in affections of the stomach.

Auburn.—Auburn, the county seat, is situated in the center of the foothills, at an average altitude of 1,200 feet above sea level. I say average, because it occupies both hills and vales, from 1,000 feet at the lowest, to 1,350 feet at the highest points. Its population was given as 2,500 people as dwelling within its limits. It lies in a very favorable position between the border lines of snow and fog.

Weather Tables.—Its average climate, for the past eight years, is shown in the following table. These statistics have been collected at the expense of a great deal of personal trouble, and are as accurate as can be had, outside of a regular weather bureau office. They include the records of the past eight years;

in which occurred two of the rainiest winters that have been recorded in the State, and also the coldest one. These factors must necessarily lower the average winter temperature somewhat below its normal. Weather records should cover at least twenty years to give an accurate average. It also increases the rainy and cloudy days above the average.

MONTHLY GENERAL AVERAGES FOR EIGHT YEARS.

Month.	Rainfall in Inches.	Days on which Snow Fell.	No. of Rainy Days.	No. of Cloudy Days.	No. of Foggy Days.	Average Temperature.
January	5.87	1.25	7.5	12.125	1.75	45.7
February	4.48	.5	6.25	10.75	.75	49.1
March	5.91	.625	8.625	16.	.875	53.1
April	1.98	0	4.	12.5	.75	59.8
May	2.35	0.	3.375	9.625	.5	62.9
June	.44	0.	1.75	6.	0.	70.2
July	.03	0.	.125	2.375	0.	75.5
August	.01	0.	.125	2.75	.25	79.3
September	.81	0.	1.	6 75	0.	71.6
October	1.18	0.	2.375	9.75	.125	62.0
November	2.46	0.	3.5	9.75	.625	57.7
December	7.13	.25	10.625	15.625	2.5	48.6

SEASONAL AVERAGES FOR EIGHT YEARS.

Month.	Rainfall in Inches.	Days on which Snow Fell.	No. of Rainy Days.	No. of Cloudy Days.	No. of Foggy Days.	Average Temperature.
Spring	4.39	0.	9.	27.125	1.25	63 5
Summer	.67	0.	1.25	11.875	.25	77.3
Autumn	11.60	.25	16.5	36.375	3.25	56.8
Winter	16.10	.5	22 375	38.125	3 375	49.0

***Temperature.*—The foregoing will give a fair idea of the climatic conditions existing in Auburn and the central part of the county, lying at the same altitude. The general average temperature is 61.5 degrees. The coldest day observed was on January 2, 1888, when the self-registering thermometer recorded 18 degrees above zero; and the hottest was the 30th June, 1891, when it went up to 107 degrees. Both of these records have been unprecedented in the annals of Auburn.**

***Snow.*—The days noted upon which snow fell, gave only traces; as upon only one occasion did snow fall to cover the ground. That was in the first week in January, 1888, when the whole State was visited by the most killing frosts known in its history. On that occasion snow fell to a depth of 3 or 4 inches, and did not disappear, in shady places, for three or four days.**

Clouds.—The cloudy days average 112 yearly; giving 253 clear days—an excellent average. But probably not more than 50 days' yearly, are entirely without sunshine. Only during the heavy winter rains is the sky continually cloudy throughout the day.

Fog.—The foggy days give an annual average of 8.0; but, in the eight years there was not a continuously foggy day. The fog was confined to the morning or evening hours, and was never dense or chill. In this particular the record is enviable.

Rainfall.—The rainfall is copious (what all Californians like), but not over great. There is always enough to ensure crops to the farmer, and a supply to the springs and wells. Of course, like the rest of the State, the rainfall is chiefly confined to the winter months; but a consultation of the tables will show a good precipitation for the spring months, making it very favorable to the agriculturist.

Winds.—The prevailing winds are west and south. The hot and disagreeable "northers" of the Sacramento Valley affect the foothills but little, and the mountains not at all. At night the wind always changes, and comes down from the east, bringing the cool breath of the mountains, and the healing odors of the pine and the fir in its embrace. This constant interchange of valley and mountain air makes the climate very healthy, and gives a wide dithermal and nycthermal range.

Daily Range.—The difference in summer between day and night is about one-third, making the nights exceedingly pleasant. In winter the change is less, but is always marked; excepting during rain storms.

DISEASES.

Introductory.—The following tables of disease have been compiled at the cost of much labor, in hours snatched from other duties, and are not as full as the writer would like. They are compiled from the register of the Placer County Hospital, which admits males only, and are a summary of the analysis of 1,500 cases, treated in that institution since January 1, 1890, to January 1, 1896. The writer did not have time to make a monthly, or even an annual summary of the cases, nor to give percentages or to note nationalities in full. In so far as these are lacking, they are incomplete; but they include all the most important facts, and, probably, all that is of genuine importance. The hospital is for the treatment of male adults only, and takes no children or females. It is, therefore, a fair criterion of the diseases of this region, in adult life, exclusive of diseases of women. A percentage of the latter class of cases is pretty much the same the world over; their exclusion cuts no figure. All the tables in this article were compiled by the writer from hitherto uncollected data.

Diseases.		No. of Cases.	No. of Deaths.
Fevers	Typhoid	4	1
	Remittent	7	1
	Intermittent	229	0
Diseases of the Respiratory Organs	Phthisis	32	16
	Bronchitis	31	0
	Pneumonia	22	7
	Pleuritis	1	0
	Asthma	18	2
Infectious Diseases	La Grippe	10	1
Diseases of the Nervous System	Neuralgia	10	0
	Epilepsy	2	0
	Alcoholism	36	9
	Paralysis	30	14
Diathetic Diseases	Rheumatism	54	7
	Scrofula	2	0
	Cancer	6	2
Diseases of Nutrition	Scurvy	2	0
Digestive Diseases	Dyspepsia	4	0
	Dysentery	2	0
	Tapeworm	2	0
Diseases of Circulation	Heart	62	22
	Arterio Sclerosis	1	0
	Aneurism	1	0
Genito Urinary Diseases	Diabetes	1	0
	Nephritis	4	1
	Prostatic Hypertrophy	10	0
	Cystitis	14	1
Skin Diseases	Epithelioma	6	1
	Ulcer	13	0
	Erysipelas	4	0
	Rhus Poisoning	6	0
Eye Diseases	Iritis	3	0
	Ophthalmia	1	0
Miscellaneous Diseases	Senile Gangrene	4	1
	Debility	17	4
	Myalgia	10	0
	Chronic Constipation	3	0

Surgical Cases.—The balance of the cases were slight ailments, and surgical cases; consisting of railway and mining accidents, gunshot wounds, fractures, dislocations, burns, scalds, bruises, sprains, abscesses, cuts, wounds, etc. All of which are common to all climes, and, therefore, have no part in this article.

Typhoid Fever.—Typhoid fever is a rare disease, and the cases are generally imported. Of the four cases that occurred, two were non-residents of the county, who became sick, were without means, and had to be admitted.

Remittent Fever.—Seven cases of remittent fever occurred, with one death.

Intermittent Fever.—Intermittent fever gives 229 cases, with no deaths. This is the largest number of cases, occurring, of any one disease. Twenty-six cases were imported, leaving 203 cases from within the county. Of these, 132 cases were from the foothills, 62 from the valley and 9 from the mountains. According to population, the ratio between the valley and foothills is about equal. Four-fifths of the cases occurred amongst farm laborers, showing the influence of environment by irrigated lands; and from drinking water contaminated by seepage from the ditches used in irrigation. The indiscriminate eating of fruit no doubt adds to the production of the disease. The affection is very amenable to treatment, as a careful analysis of the cases shows that the average time of treatment, from admission to discharge, was a fraction under ten days. When it is taken into consideration that the majority of these cases occurred in men mostly advanced in years, and impecunious through dissolute habits, it speaks for the mildness of the disease. No Chinese appear upon the list as suffering from intermittent; but 7 Japanese were treated. From the writer's observation he is satisfied that if indiscriminate eating of fruits be avoided, and only cold tea or boiled water be drank, few cases will occur. The notorious immunity of the Chinese from the disease is, undoubtedly, due to their invariable habit of drinking nothing but cold tea to quench thirst.

Phthisis—This scourge to humanity appears with a total number of 32 cases, with 16 deaths—50 per cent. Their nationality was as follows: 14 from the United States; 5 from Germany; 4 from Ireland; 2 from Wales, and 1 each from Japan, New Zealand, England, Canada, Mexico, Russia and France. Only one case was a native born Californian. He was of Mexican parentage. Ten cases (one-third) were imported ones. Ten came from the mountains, 15 from the foothills (amongst which appear 8 of the imported cases) and 7 from the plains. The two remaining imported cases came from the mountains. These importations were men from the East and from the southern part of the State (probably from the East originally), who got thus far, seeking the benefit of climate, and, for want of means, were compelled to seek refuge in the hospital.

Bronchitis.—Only 31 cases and no deaths appear. Nearly all the cases of this disease, not imported, appear in broken down old men.

Pneumonia. — Twenty-two cases and seven deaths appear against this fatal disease. Thirteen of these, and five of the deaths, were complicated by alcoholism. Alcoholism and pneumonia, when combined, make a strong team to curb, especially when they drive through an American constitution.

Pleurisy.—Only gives one case, in which the thorax had to be opened and drained. It occurred in a native of the State, and came from the valley.

Asthma.—Shows up with a total of 18 cases, with 2 deaths. Twelve of these were imported ones, under similar circumstances to those noted in phthisis. All the cases had sought this coast for the benefit of their health.

La Grippe.—Ten cases of this contagious affection appear with one death. All occurred during the winter months. The fatal case was complicated with heart disease.

Neuralgia. — Gives ten cases, appearing indiscriminately throughout the seasons. Five came from the valley, where periods of prolonged north winds seem to aggravate the disease.

Alcoholism.—Being common to all climes is found in its usual proportion, and gives a death-rate of 25 per cent.

Rheumatism.—Stands third on the list in frequency. Two-thirds of the cases came from the mountains, from amongst the placer and hydraulic miners. These men have to work in water continuously during the wet season and suffer in consequence, especially when past the prime of life. There were only six cases of acute rheumatism with one death. The deaths noted as occurring from the disease were in old, wornout men.

Scurvy.—Gave two cases. These both occurred in miners who had spent their winters in the mountains, isolated by snow, and had been deprived of vegetable food.

Dysentery.—Is a rare disease. The climate does not seem suitable to it, or any other bowel disorder.

Heart Diseases.—All the various affections of the heart are classed together, and give the second greatest number of cases in frequency—62 cases and 22 deaths, a mortality of 33 per cent. Of these, 43 came from the mountains, 12 from the foothill and 6 from the valley. Climatic factors show their influence more markedly in this, than in any other, disease. That the rarefied air, and lesser pressure, of high altitude produce heart lesions I am fully satisfied. Hard and violent exercise, such as is necessitated in the life of our placer and hydraulic miners, together with the quickened heart beats, causes rupture of the chordæ tendinæ and dilatation of the ventricles. In some cases hypertrophy is induced from the increased excitation of the organ caused by straining efforts in lifting heavy boulders, timbers, etc., in the rarefied atmosphere.

Genito-Urinary Diseases.—These are mostly confined to affections of the bladder. Kidney troubles are rare, only one case of diabetes and four of nephritis appearing in the list. Cystitis, caused by neglected stricture, is often met, also enlarged prostates in aged and broken down men.

Skin Diseases.—Amongst these affections chronic ulcer of the leg is most frequent. Erysipelas is very rare and of the simplest type. Rhus poisoning occasionally occurs.

Eye.—Eye affections are rare, other than traumatic.

Senile Gangrene.—Senile gangrene is generally met in cases of old miners who have spent much of their time standing in cold water in rubber boots. This seems to impair circulation in the feet and induces gangrene. Many of these cases recover after removal of the affected part. All four cases noted were operated upon, and three of them made good recoveries.

General Debility.—Debility, from old age and dissipation, is as common as elsewhere, and has a pretty high mortality.

Myalgia.—Myalgia gives ten cases, chiefly among the miners, produced by the same causes as noted for rheumatism.

Conclusion.—This article has been written without fear or favor, and chiefly from the statistician's standpoint. Naught has been set down in exaggeration and naught concealed. Let the figures tell their own tale. That it is a region eminently suited to diseases of the kidney and respiratory organs is, I think, proved. The air is bright, dry, clear and invigorating, and so much continuous sunshine must contribute to hæmatosis and to the checking of katabolism. Therefore, it is a locality eminently suited to cases of incipient phthisis, asthma and bronchitis. The rarity of typhoid fever is also marked, due, probably, to both climatic conditions and the chemical constituents of the soil.

HANGING SHOULD BE ABOLISHED.

By P. C. REMONDINO. M. D., San Diego, Cal.

A late execution in the United States, wherein the unfortunate man was dropped twelve feet, with the result that the sudden strain broke the rope, the victim being afterwards taken into a tool-house while the deputies scurried off up town in search of new rope, the half-dead man begging piteously in the meantime that they should hurry and end his misery, is another condemnatory incident against the employment of hanging as a legal mode of execution. In Spain, a late garroting was made ghastly by the non-fitting of the machinery, the victim having to stand by while the mechanics arranged the fittings. Electrocution seems barbarous and unnecessarily burdened with too many preliminary mental tortures, to all concerned, tortures that are of no earthly avail in preventing crime in other criminals. In Germany, the axe or the decapitating sword are still used as in the good old days when traitors' heads were placed on pikes on the Tower Hill of London. A philanthropic German has lately presented a memorial to the Emperor William, suggesting the supplanting of all barbarous and bloody execution methods by the silent carbonic oxide cell. This could be worked without any of the accessories that are so brutalizing, and the victim would simply pass from life to eternity or into space in the most unconscious manner.

As long as capital punishment seems an indispensable attachment to our civilization, it should be rendered as humane as possible. It is a mistake to imagine that public hangings deter the criminally inclined. That "stupid indifference," so well described by Lombroso, that is the main distinctive feature of the natural criminal, extends to himself as well as it exerts no good influence over its possessor when it comes to consider the rights of others; such a disposition is not affected either by the sights or the thoughts of the execution of another. The time will yet come when a higher and a more prosaic civilization will see the propriety of less barbarous methods in dealing with these unfortunates. That a murderer has shown no mercy to his victim is no excuse for our smothering what mercy we ourselves may or should possess. The "stupid indifference," the inherent animalism, the education to which the criminal has been subjected, all have tended to brutalize him and do away with any human sentiments. There exists a great gulf between the murderer of a Blanche Lamont and the murderers of a Pearl Bryan on the one hand, and the Vicar of Wakefield on the other.

It might probably be best—on preventive medicine grounds and in a sociological sense—to execute most criminals as soon as a clear diagnosis of their condition is made out, without waiting for them to commit that one crime which sooner or later will bring them to their end, but this execution should be untheatrical, painless and passionless. We now treat the criminal as if his crime had turned us into retaliatory imps, and as if we gloried in meting out a just retribution. This is neither philosophical, scientific, civilized, nor humane. Let some State legislature supersede the neck-breaking drop and the rope, with the carbonic oxide cell, and its greater perfection, freedom from all accidents or failure, and more humane action would soon recommend it throughout the United States.

In our dealing with the criminal we seem to forget, or to overlook, that the discovered crime which consigns him to the death penalty, is but an episode—a link, as it were—in his career, instead of a detached and a responsible act. We deal out to him some of that cruel irony that the inquisition was wont to extend to its victims, when it shuddered to shed their blood, but in delusive magnaminity gloried in breaking their bones, dislocating their joints and burning them to a slow fire. We shudder at the tale of the execution of Armagnac by Louis XI., or wonder at the cruelty that attended the execution of the attempted regicide, Damien, but shut our eyes to the cruelty of our own times.

We may well say that society at large nor the science of law have by no means kept pace with the developments that have taken place in that branch of sociological science that treats of criminology. Our civilized methods should, in these regards, keep pace with the teachings of Lombroso and Joly.

COAL TAR ANTIPYRETICS.

By J. A. MARTIN, M. D.,
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(Read before the Alumni Association of the Medical College of Indiana, March 31, 1896.)

The great difference of opinion regarding the virtue of antipyretics of the so-called coal-tar derivation has led me, in the past few years, to make a close study of this group of medicines. I shall make it the object of this paper to show the relation existing between the various important members of this group, from a chemical, physiological, toxicological and therapeutic standpoint.

Omitting the discussion of all mechanical mixtures, "anti-this" and "anti-that," which are products of uncertain composition and are Dr. So-and-so's "favorite prescription," I shall adhere strictly to products of distinct and known chemical composition, such as antipyrin, acetanilid, phenacetin and lactophenin. The majority of these products are chemically derived from the first member of the benzene series of hydrocarbons (C_6H_6), benzene through its mono-atomic alcohol, or phenol (C_6H_5OH), carbolic acid.

Carbolic acid itself acts as an antipyretic in two ways: first, by diminishing the production of heat; secondly, by increasing the dissipation or radiation of heat. The exceedingly poisonous and caustic properties of phenol have caused a very limited use of this product as an antipyretic, it having been superseded by its milder and equally efficient derivatives.

The characteristic symptoms of an overdose of carbolic acid are briefly: clonic convulsions, dyspnea, free salivation, lachrymation, conjunctivitis, diminished sensibility, and reduction of temperature. Albuminuria and hematuria are sometimes produced. The chief characteristic of the action of phenol is reduction in arterial pressure. It paralyzes the vaso-motor centers and later markedly depresses the heart, though death from this drug is usually due to paralysis of respiration.

The chemical relation of antipyrin to phenol is shown by its being produced by heating phenyl-hydrazine ($C_6H_5NH.NH_2$) with diacetic ether $\left(\begin{smallmatrix}C_2H_3O\\ C_2H_2(C_2H_5O)\end{smallmatrix}>O\right)$ when the product is mono-methyl-oxy-quinizine, in which by the replacement of one atom of hydrogen by another methyl group (CH_3) di-methyl-oxy-quinizine is formed, which has been given the name of antipyrin on account of its opposition to fever.

Antipyrin was a great improvement as an antipyretic over its predecessor in the coal-tar field, carbolic acid, in that a caustic, poisonous liquid was supplanted by a non-caustic, crystalline powder, soluble in less than its own weight of water, though still retaining many of the physiological and therapeutic properties of phenol. The great trouble with antipyrin is, that it retains too much of the poisonous properties and depressing effects of phenol.

Regarding the nervous system, toxic doses of antipyrin seem to exert a peculiar influence upon the cerebral cortex, as is indicated by the stupor and coma which are noticed. It peculiarly stimulates, then depresses, the spinal cord. It is an extreme depressant of the sensory nerve trunks.

Regarding the circulation, antipyrin, in therapeutic doses, increases arterial pressure, while toxic doses lower the pressure. It has been proved to be a direct paralyzant to the heart of the frog. Toxic doses of antipyrin first increase, then markedly decrease the respiration.

The common symptoms seen in antipyrin poisoning are ataxia, paraplegia, humid respiration, convulsions with general rigidity, dilated pupils, unconsciousness and a fall of temperature.

When death occurs, it seems to be due to failure of respiration. The poisoning is due to the action of the decomposition products of the drug upon hemoglobin, to which substance is largely due the condition of cyanosis.

The frequency of an existing idiosyncrasy to antipyrin makes its promiscuous administration very dangerous, since very small doses have produced very alarming conditions.

Acetanilid ($C_6H_5NH.C_2H_3O$) traces its relation to phenol through phenylamine or aniline ($C_6H_5NH_2$) in which one atom of hydrogen is replaced by the acetic acid radical (C_2H_3O), acetyl. It is made by boiling together, for a day or two, equal weights of pure aniline and glacial acetic acid, acetanilid and water resulting. When given in large doses, or to persons having an idiosyncrasy for the drug, acetanilid produces symptoms very similar to those produced by antipyrin, except that the sweating, which does not always occur in either case, is, as a rule, more profuse following the administration of antipyrin, while the cyanosis is more pronounced following the use of acetanilid.

The latter condition may be explained by the fact that both the decomposition products of acetanilid (aniline and glacial acetic acid) act as deoxidizers upon the blood, both tending to convert the bright-red oxyhemoglobin into the bluish-purple met-hemoglobin, thus preventing the proper oxidation of the tissues.

Usually when acetanilid is given to patients suffering from fever, there is a more decided fall in the pulse rate than in the temperature, though both are decreased. Not only the pulse rate, but the size of the pulse is decreased, even to the extent of becoming thready. This proves acetanilid to be a direct cardiac depressant. Acetanilid produces a fall of temperature by decreasing heat production.

Phenacetin, or acet-para-phenetidin $\left(C_6H_4<^{OC_2H_5}_{NH(C_2H_3O)}\right)$ is derived from para-phenetidin $\left(C_6H_4<^{OC_2H_5}_{NH_2}\right)$, which is the ethyl ether of amido-phenol; this latter is derived from mono-nitro-phenol $\left(C_6H_4<^{OH}_{NO_2}\right)$, it in turn being derived from phenol (C_6H_5OH), or carbolic acid.

Phenacetin acts as an antipyretic by lessening heat production, through an influence on the nervous system, and without alteration of blood pressure.

Though the blood pressure is not affected by phenacetin, not infrequently a condition of cyanosis is observed where large doses of this drug have been administered. This action is undoubtedly due to the action of one of its decomposition products, probably acetic acid, upon hemoglobin, as in the case of antipyrin and acetanilid poisoning.

The only unpleasant symptoms usually seen following the use of phenacetin are, too profuse sweating, slight ptyalism, slight weakness, dizziness and dyspnea. In rare cases phenacetin is found to produce collapse, marked cyanosis, great dyspnea and restlessness, cold perspiration and dilated pupils; but these symptoms are always followed by recovery.

Lactophenin $\left(C_6H_4<^{OC_2H_5}_{NH.(C_3H_5O_2)}\right)$, or lactyl-para-phenetidin, is related to phenol in exactly the same way as phenacetin, being directly derived from para phenetidin.

Lactophenin differs from phenacetin merely in the acid radical, *i. e.*, lactophenin is produced by the replacement of one hydrogen atom in paraphenetidin by the lactic acid radical ($C_3H_5O_2$), lactyl; while in phenacetin the same hydrogen is replaced by the acetic acid radical (C_2H_3O), acetyl.

Lactophenin is a white crystalline powder, much resembling in appearance the other members of this group. Its action, though rapid, is not abrupt. The antipyresis produced by lactophenin lasts for six to eight hours, while the subsequent rise of temperature is not accompanied by shivering and other unpleasant effects.

The hypnotic and analgesic effects of this drug are decidedly more pronounced than produced by either phenacetin, acetanilid or antipyrin. Lactophenin, like phenacetin, has no effect upon respiration or circulation, but reduces body temperature by lessening heat production through an influence upon the nervous system.

Cyanosis has never been known to follow the administration of lactophenin since none of its decomposition products have any effects upon hemoglobin.

It seems to me, that the key-note was struck when the idea of introducing into para phenetidin a lactic acid radical, instead of an acetic acid radical, was evolved, thus producing an antipyretic which has no action upon either the respiration or circulation and at the same time produces no poisonous effects whatever.

In my opinion, the day is not far off when antipyrin will be almost wholly discarded on account of the uncertainty of the degree of its action, and on account of its incompatibility with a large number of drugs in common use; acetanilid will find a home with the surgeon as an antiseptic dressing; and phenacetin, which has done a noble work as a forerunner, will give way to its younger and more worthy brother, lactophenin.

Indianapolis, Ind.

Suicide in Germany.

A curious series of statistics, collected from the different States of the Empire, has just been published in Berlin, showing the number of suicides which have been committed in Germany during the thirteen years from 1881 to 1893, inclusive. According to this return the number of suicides for that period was 105,327, the totals ranging from 8,987 in 1881, to 10,699 in 1893, and the rate per head of the population varied very much, being as high as 46 per 100,000 inhabitants in the Duchy of Saxealtenburgh, and falling as low as 13 and 11½ per 100,000 inhabitants in Bavaria and Alsace-Lorraine. The suicides are proportionately more numerous in the Prussian Army than in any part of the Empire, having been 65 per 100,000 in 1893.

Sections

MEDICINE.

In charge of SAM'L O. L. POTTER, M. D., M. R. C. P. L.

Inhalations in Phthisis.—Inhalation is one of the oldest methods of medication. Homer recorded the disinfectant power of sulphur vapors and Galen prescribed the fumes from Mount Vesuvius to be inhaled for various affections. Hippocrates described an apparatus for administering inhalations. Balsamic inhalations were directly employed by Galen, Asclepiades and Dioscorides; and the inhalation of mercurial vapors was employed for ages in India and Arabia in the treatment of disease. The systematic use of medicated inhalations for the treatment of pulmonary phthisis antedate the bacillary theory of its etiology by over a century. Carbonic acid gas was employed by Percival in 1774 as a palliative in the later stages of phthisis, also by Dobson and Home in 1779. Tar vapors were recommended by Rush of Philadelphia in 1787, and were strongly advocated by Sir A. Crichton, physician to the Empress of Russia, as a cure for phthisis, in 1817. Mudge's inhaler dates from 1778. The use of nebulized (atomized) medicaments is of later date. Auphan in 1849 directed a delicate stream of mineral water against the wall of an apartment for inhalation purposes, and Sales-Girons in 1856 devised an inhalatorium or inhalation-chamber, in which the sulphurous waters of Pierrefonds were forcibly driven against a metallic plate at short range and converted into a fine spray. The portable spray-producers (nebulizers) of Charriere and Mathieu dated from 1859, and have been succeeded by many improved devices for the same purpose. It is not proposed to give an account of all the agents and methods which have been suggested or used for the local treatment of pulmonary tuberculosis, as they are too numerous for the limited space at our command; but our observations will be confined to the most typical agents which have been actually used in recent years for this purpose. These may be arranged under the five headings: (1) Inhalations of Air and Modified Air, (2) Gaseous Inhalations, (3) Inhalations of Vapors and Fumes, (4) Nebulized (Atomized) Inhalations, (5) Insufflations.

Air and Modified Air.—The systematic forced respiration of atmospheric air, through an inhaler or a long tube, thrice daily for half an hour each time, was recommended by Dr. Ramadge in 1836, in the early stages of phthisis, as a means of enlarging the chest and increasing the permeability of the lungs. To influence the mind of the patient he added a little ether, vinegar, or turpentine to the inhalation; and also employed air artificially cooled. Condensed and rarefied air applied in a wrought-iron spherical chamber, was used by Tabarie of Paris in 1832, and by Pravaz, Bertin and Milliet in 1838 and subsequently. Waldenburg's apparatus for this purpose (1875) is modeled after the spirometer of Hutchinson, while that of Frankel resembles an accordion and is intended for home use. The costly pneumatic cabinet of Williams and Ketchum is a later and more impressive apparatus which had a brief period of popularity during the last decade. Certain physicians, desirous of impressing their patients with their enterprise and progressive methods, set up an air-tight safe of glass, iron and rubber, at an expense of $800. to $1000. and for a few months were the subjects of the "talk of the town." Cures were duly reported, papers were read before local medical societies, and the usual advertising programme was gone through, but this fad took its departure in due season, and now has only an historical interest as a "cure" for consumption.

Heated Air Inhalation had a brief period of popularity until Mosso, of Turin, demonstrated experimentally that even with the inhaled air at 320° F. the temperature in the trachea showed only 100° F., so rapid is the cooling process in the respiratory tract. This method of treatment was commenced a few years ago by Weigert, an American physician living in Berlin. He caused his patients to inhale dry air at a temperature of from 104° to 140° at first, gradually raised to 175°. Dr. Halter went even further, having himself inhaled, and caused patients to inhale, dry air heated to 374°. The general effects were, as usual, represented as having been remarkable, patients who had been falling away picking up strength and becoming quite robust, the physical examination showing at the same time that the dullness and rales had perceptibly decreased. The bacilli in the sputum, which had been very numerous, rapidly diminished in number, and finally disappeared altogether. This method, and the theory on which it was based, were discussed at the Clinical Society of London and at the Academie de Médecine, in 1890, by several very eminent clinicians, including Dujardin-Beaumetz, Macfarlane, Williams, etc., with the almost unanimous agreement that it is useless and by no means free from danger.

Gaseous Inhalations in Phthisis.—Among gases the choice is very limited, as most of those possessing antiseptic qualities are partly irrespirable and partly irritant and toxic. The components of the atmosphere, *Oxygen* and *Nitrogen*, also their modifications *Ozone* and *Azote*, have been thoroughly tried, but without satisfactory results. Fourcroy (1790) found that inhalations of oxygen in phthisis, although palliating the earlier symptoms so much as to promise approaching recovery, caused violent evidences of inflammation after a few weeks, and precipitated the fatal termination. *Nitrous Oxide Gas* was long paraded by charlatans under the name "compound oxygen," and has been employed in phthisis, but without results entitling it to any credit as a remedy therefor, though Larison (1874) reported a case of miliary tuberculosis which recovered under daily inhalations of five gallons of the gas. *Hydrogen* was used by Beddoes; and *Sulphuretted Hydrogen* from mineral springs has long been used in Germany and France. Recently, Dr. Rienzi, of Naples, places sulphuretted hydrogen in the front rank of remedies to be used by inhalation for phthisis. *Carburetted Hydrogen* (illuminating gas) was the subject of an article in the *Lancet* in 1836 by Dr. Clauny, who lauded it as a "cure for phthisis pulmonalis." *Carbonic Acid* was used by Percival, in 1774, as a palliative in the later stages of the disease; and Howison, in 1797, reported "a case of phthisis pulmonalis completely cured from the patient breathing mephitic air." At various continental spas the inhalation of this gas has long been a recognized method of treatment for pulmonary affections, including phthisis. *Chlorine Gas* was advocated as a curative inhalation in phthisis by Gannal as early as 1819. He read a memoir on the subject before the Paris Academy of Sciences in 1828, and exhibited an apparatus devised by him for administering it. His reported results were confirmed by many prominent clinicians; but Jolly stated, as his conclusion from sufficient experience, that the use of chlorine in this disease was wholly inefficient, and that it acted injuriously in many cases by increasing the cough, the oppression and the fever. These observations were confirmed by the celebrated Louis, who reported that in more than fifty cases he had not observed any successful result from the inhalation of chlorine. Chlorine formed a part of the recent Gibbes and Shurly treatment, mentioned in a previous article, but there is nothing in the reports thereon to show that it had any special influence in obtaining the results observed. *Sulphurous Acid* is extensively employed as an inhalant at many of the sulphurous springs of Europe. The manufacture of sulphuric acid is asserted by Baumes (1845) to protect those employed therein against phthisis, and to even restore to health many who seemed predisposed to the disease.

Vapor Inhalations in Phthisis.—The vapors and fumes of volatile and volatizable substances have been used against phthisis from a very early period. Camphor vapor was so employed by Avicenna, and the inhalation of balsamic air dates from Rhazes in the 9th century. Little, in 1809, wrote "on the method of preparing and administering mercurial gas in phthisis pulmonalis." *Iodine* vapor escaping from seaweed was used in 1825 by Laennec, who kept twelve consumptive patients in his "artificial sea-air" for four months, but without permanent result. Berton in 1828 employed the direct Iodine vapor inhaled from a flask, and Sir Jas. Murray and Sir Chas. Scudamore (1830) were enthusiastic advocates of this treatment. Piorry (1850-1861) treated of it in terms of high encomium, and required his patients to inhale it even during sleep. *Ethyl Iodide* is the agent now generally used for conveying iodine into the system by inhalation, and has many advocates. *Hydrofluoric Acid* was suggested by Garcin about ten years ago from his observations of its effects on glass-workers. The Paris Academy of Medicine appointed a committee to examine into the subject, and the chairman, Dr. Herard, reported in 1887 that he and his colleagues had treated 100 cases, of which 35 were cured, 41 improved, 14 unaltered and 10 died, concluding with the opinion that "tuberculosis, if it be not too far advanced, is curable by this method." During the next two years several papers on the same subject appeared in the medical press of France and other countries, but nothing has been published lately in regard to this method. *Balsamic Vapors*, artificially prepared, were employed by Dr. Bennet of London in the middle of the 17th century, also by Mead and others. Frankincense, styrax, ammoniacum and turpentine, with coltsfoot, cinnamon, etc., were made into troches, burned upon hot coals, and their vapors inhaled. Trousseau and Pidoux used the Balsam of Tolu and Benzoin in the same manner, which they preferred to any other method of inhalation. Resinous vapors from pine forests were advocated by Ireland in 1864, and have been extensively employed since in many parts of the world. *Tar Vapors*, advocated by Rush in 1787, Crichton in 1823, Beddoes, Morton of Philadelphia, and many others, have been a very favorite inhalation. Oliver, (1871) suggested the use of fresh oakum introduced into a respirator and worn continuously. *Turpentine* has had many partisans, from Ramadge in 1838 and Snow in 1851 to Prof. Skoda, 1862. *Terebene* is its modern modification, and is placed with sulphuretted hydrogen in the front rank of inhalants by Rienzi of Naples. The *Oils of Pine*, especially that of the Scotch pine, are less disagreeable in odor, and have been used, but with little benefit compared with that obtained by the use of turpentine. *Arsenical Vapors* were anciently used in pulmonary affections, and were revived in phthisis by Trousseau (1841) in the form of the cigars of Dioscorides. *Creosote, Carbolic Acid*, and *Wood Naphtha*, vaporized from the surface of hot water, or by other methods, have been long used and with benefit The latter was introduced into practice by Crichton in 1816, and in 1845 it attracted some favorable attention as a remedial agent in phthisis. Dromanski of Cracow (1875) proposed the inhalation of compressed air charged with oil of turpentine and also with a 1 per cent. solution of carbolic acid. Germain Sée advocates the use of creosote and eucalyptol with compressed air in a close chamber for four or five hours daily. *Ether* was highly praised by Pearson in 1797, who stated that he found its inhalation diffused an agreeable coolness throughout the chest, alleviated oppression and cough, lessened expectoration and hectic fever, and even promoted the cicatrization of tuberculous cavities. *Monachlorophenol* is very volatile, and its vapor being much heavier than air penetrates to the remotest air-passages. It has recently been used with benefit as an inhalation in phthisis.

Chloroform in Phthisis.—Chloroform was highly praised as a palliative inhalation by Sir Spencer Wells, in 1851, in a paper read before the Royal Medico-Chirurgical Society, in which he presented the case of a young consumptive nobleman then recently deceased, one of whose last wishes was that the medical profession should know of the great relief afforded him by inhaling small quantities of chloroform in every attack of dyspnœa and spasmodic cough from which he had suffered during the last eight months of his life. Dr. I. Burney Yeo (1893) says that chloroform "is often a valuable addition to many of these antiseptic inhalations. It is itself a powerful antiseptic, and by its ready volatility may help to convey the vapors of less volatile antiseptics deep into the air-passages, while its sedative effect is valuable in allaying irritative cough." In 1890, the writer of this paper, in a letter to this journal, briefly announced some personal experience with chloroform vapor as a microbicide in the purulent catarrh of inaccessible cavities like the antrum, in epidemic coryza, hay-fever and similar affections; and suggested its continuous inhalation as a method of destroying the bacilli. As its vapor is heavier than air, it might be expected to penetrate deeper into the lungs than lighter vapors. This suggestion was copied by the *Journal de Medecine de Paris*, also by the *Indian Medical Record*, but no reports of experience therewith have been published. The principal objection to this method is the difficulty of carrying it out thoroughly, as it requires skilled attendants to administer the inhalation safely. The hypodermic injection of a weak *Chloral* solution has been used by the writer in lieu of the chloroform inhalations, and has seemed to render good service in several cases.

Nebulized (Atomized) Inhalations in Phthisis are very numerous, almost every known antiseptic substance having been employed in the steam or hand-spray atomizers. Here again *Creosote* leads in popularity and efficiency, *Iodoform* probably coming next in order. The latter is dissolved in ether and the solution is then nebulized in a steam atomizer for inhalation. It may be used internally at the same time, and is warmly advocated by many, including Dreschfeld, who was one of the first to employ it, and Prof. Semmola. *Sodium Benzoate* was a favorite remedy by inhalation until recently. Its use was founded on observations by Schüller, who stated that after producing artificial tuberculosis in animals he had cured it by causing the animal to inhale this substance in the proportion of 1 to 1000 of its body weight. Rokitansky applied it to human subjects and announced it to be curative in phthisis pulmonalis. *Guaiacol*, the principal ingredient of creosote, is a favorite agent with many clinicians. Huchard of Paris (1895) uses a spray in the living room of the patient for an hour or two at a time, the atomizer containing 1oz. to 1½oz. of the following mixture: Guaiacol 50, Eucalyptol 40, Carbolic Acid 30, Menthol 20, Thymol 10, Essence of Cloves 5, and Alcohol to make 1000. By this method he obtained the recovery of a woman in the second stage of pulmonary tuberculosis after eight months of treatment. Jaccoud, who saw her before and after treatment, confirms the fact of her recovery. *Mercury Biniodide* 1 part, Potassium Iodide 1, Distilled Water 1000, atomized by a very fine spray, was used by Rueff and Miguel at the Rothschild Hospital in Paris. They report 3 cases of absolute cure, and 70 per cent. benefited. *Mercury Bichloride* in solution with common salt as atomized inhalation, also gr. $\frac{1}{60}$ twice daily by the stomach, has been employed with "immense improvement."

Insufflations in Phthisis.—Powdered antiseptics are blown into the trachea with the object of reaching parts inaccessible to the atomized spray. Loebinger of New York (1890) uses in this manner a compound powder, containing *Calcium Phosphate*, also *Sodium Benzoate* and any one of the ethereal oils, in the shape of an elæsaccharum, so that the whole may form a fine, amorphous powder. Martel used *Calomel* in the same manner, and Bramwell advocates the intralaryngeal injection of *Menthol* in olive oil, 1 in 10. Reichert uses a solution containing *Salicylic Acid* 1 to 2 parts, dissolved in 3 to 6 of Oil of Peppermint, and diluted up to 200 parts with distilled water. He has used this treatment in 60 cases, always with uniform good results.

Intrapulmonary Injections through the chest wall of creosote, carbolic acid, iodoform, iodine, mercuric chloride, iodine and carbolic acid combined, camphor and carbolic acid, and camphorated naphthol, in oils or other solvents, have been used in the treatment of phthisis; but serious accidents have resulted in several cases, and the benefits derived therefrom have not been sufficient to encourage the general adoption of this method.

BITES OR STINGS OF INSECTS.—A saturated solution of camphor or salol in ether may be applied with benefit. Or the spot may be painted with:

℞	Collodion	ʒiiss
	Salicylic acid	gr. xv
	Benzoic acid	gr. xv

M. —*La Med. Mod.*

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SAN FRANCISCO, JUNE, 1896.

Editorial.

AMERICAN MEDICAL ASSOCIATION.

The meeting of the Association at Atlanta seems to have been remarkably harmonious, as every meeting of the Association should be. The new President, Dr. Nicholas Senn, was elected without a ballot, as was also the Vice-President, Dr. Geo. M. Sternberg, U. S. Army. The next meeting of the Society is to be held at Philadelphia. Of all places for the next meeting Philadelphia is the most appropriate, as 1897 is the Association's jubilee year, and Philadelphia was the birth place of the American Medical Association, that is, its constitution was adopted and its name chosen there. The Association very properly refused to send delegates to the International Medical Congress at Moscow, in 1897, as those eminently civilized Russians refused to recognize our semi-barbaric English language as official. It seems, however, that the Committee of Arrangements at Moscow has concluded to recognize English as official,—it is a proud day for the English language. It is certainly a courteous act on the part of these cultivated people to endure the infliction of our barbaric tongue; to ears so accustomed to their own liquid and gently flowing language it will be no inconsiderable sacrifice. We would suggest to those who contemplate preparing articles for the Congress that they carefully confine their remarks to science. The great Czar of Russia has a great antipathy to reformers as has that highly enlightened ruler—Kruger.

GRADUATING EXERCISES.

The Medical Department of the University of California held its graduating exercises at the Baldwin Theatre, May 21st., at 2 P. M. Forty-nine new doctors were added to our ranks, four of them being of the gentler sex. The house was crowded to its utmost capacity; the band discoursed excellent music. The President of the University, Martin Kellogg, conferred the degrees, addressing the candidates in Latin. After the exercises the young graduates received the congratulations of their friends. In the evening the Alumni of the Medical Department and the Medical Faculty, invited the fledglings to a banquet at the Palace Hotel, where they were initiated into the mysteries of how doctors enjoy themselves when off duty. The entertainment consisted of a good supper, good speeches, and good music. Professor Ritter, of Berkeley, and Regent Reinstein made some eminently practical suggestions for the continued development and for increasing the usefulness and influence of the University. They urged the necessity for a closer fellowship between the several departments and for all working with a view of securing that which will result in the greatest good to the University as a whole. Dr. H. N. Rucker, of Oakland, the oldest of the Alumni present, made a capital speech to the "old guard." Dr. R. Beverly Cole, as usual, spoke of himself, made the usual declarations in his usual solemn and impressive manner, that he had but a single ambition in life, viz., the interest of the Medical Department of the University of California. He called upon the doubting Thomas, to apply the X-ray to his heart and verify his assertion,—the X-ray man not materializing, every one continued in the enjoyment of his previous opinion and his wine, seemingly more interested in the latter than the former. Thus did our newly made future fellow laborers end the first day of their new life. We wish them health, prosperity and a useful and honorable career, coupled with the hope that their Alma Mater and their teachers will ever have a green corner in their memories.

FRENCH HOSPITAL.

The directors of the new French Hospital at a recent meeting seem to have awakened to the realization that it costs money to run a large hospital, and that paying patients are a very necessary means to that end. Experience has taught them that to procure paying patients much depends upon the medical staff. The directors concluded to make a change and elected Dr. D. Marville surgeon-in-chief, instead of re-electing Dr. Chas. B. Brigham, and electing Dr. Oscar Mayer gyneocologist instead of re-electing Dr. Samuel Boyd.

We ask the attention of our readers to two works on "Consumption" in this month's book notices. We cannot have too many works of their kind; thousands of lives can be saved by every one of our readers recommending one or both of these works to their patients, and to their Legislative representative. Our State Board of Health would do well to recommend these works to the people of our State.

Prolific Canadian Half-Breed Family.

A letter to the Philadelphia *Telegraph*, from northern Vermont, refers to a Canadian half-breed with a remarkable family record. His name is Macomber, and he is the son of a French Canadian; he visits northern New York and Vermont selling snowshoes, baskets and moccasins. "The tribe to which he belongs has a reservation twelve miles square. The tribe is descended from the Five Nations. The reservation is known as Caughnawaga. Macomber's grandfather died last week, aged 103, leaving considerable wealth. He had married three times, the first two wives being dead. His first wife bore him six children, the second fifteen and the third the same number. His grandchildren, great-grandchildren, and great-great-grandchildren number over 1,000. Of thirty-six children twenty-eight are living, as are most of the grandchildren, great-grandchildren and the great-great-grandchildren. The tribe claims a portion of Vermont known as the Missisquois Valley. Chiefs and great men of the Five Nations have appeared before every session of the Legislature for half a century demanding remuneration."—*The Journal.*

Proceedings of Societies.

TWENTY-SIXTH ANNUAL MEETING OF THE MEDICAL SOCIETY OF THE STATE OF CALIFORNIA.

[*Continued from May Number.*]

Dr. Charlotte Blake Brown, of San Francisco, presented a valuable and timely paper on

The Health of School Girls.

The great number of invalids among women, and the great increase in number of specialists in diseases of women, may well call the attention of physicians to its cause, and their duty towards the prevention of this disease in the earlier stages. Three-fourths of all her cases were school girls under 19 years of age. On examination, the percentage of days of attendance among school girls at the age of puberty shows that but very few girls are excused on account of dysmenorrhœa. The author concludes that the cause of ill health must be sought elsewhere than in puberty. The following questions were therefore prepared for the ninth grade of the Grammar schools, and the first year of the High schools, and submitted to the girls of San Francisco and Oakland: (1) Do you eat breakfast? (2) What does your breakfast consist of, generally? (3) Do you have a warm lunch? (4) At what hour do you go to bed at night? (5) Do you often go to bed later? (6) What regular duties, if any, do you have at home, daily, in connection with house-work, or anything else, and how much time do they take? These were answered by 287 girls in Oakland, and 1,000 in San Francisco. From a study of these answers the author presented the following points for consideration: (1) Rising early enough to fill one's lungs with pure air, after a suitable toilet, a cheerful, generous breakfast of material chosen on which to do four good hours' work before noon; that is, some home duty, a brisk walk to school, with three hours' of study. (2) A warm lunch, even if but a cup of cocoa or hot milk, or a bowl of soup warmed up, with the lunch-basket meal. Conveniences for preparing such a dish should be provided in every school, office, or factory where human beings eat the noon meal, unless a place near by offers such food for a few cents. In some cities this want is filled by the New England Kitchen, which sends large receptacles of hot soup to the schools. The contents, too, of the lunch basket are worthy inspection. (3) The great need of exercise and, besides the morning duties, an hour at least, after school, should be given to out-of-door sport. Errands, which were many times noted on my list of answers, are good, so is a bicycle ride, or out-door gymnastics, or a good walk, which should be felt not a duty but a pleasure. (4) No study allowed after 9 P. M., and every girl of 15 should be asleep at 9:30 P. M., a later hour being permitted Friday or Saturday nights only; even then not very often. (5) Urge upon parents that the social life of school girls should consist of afternoon entertainments, and almost never evening parties.

DR. DAVID POWELL, of Marysville: The importance of the physical and mental training, and of watchful attention to the development of girls has occupied the attention of teachers and physicians almost from time immemorial. There can be no doubt that in our schools, both public and private, in our colleges and seminaries for the education of young ladies, physical culture and the observation of the rules of health are sadly neglected. What is the result? Nervous affections, exhaustion of vital energy, near-sightedness and enemia. I believe this is largely due to the lack of physical exercise, to the too prevalent disregard of the obligations which sex imposes upon the developing girl. For this reason, the matter of school hygiene should receive more attention at the hands of the medical profession.

DR. S. A. KNOPF, of Los Angeles, said that one cause of ill health among girls was due to improper dressing. The wearing of corsets was particularly condemned.

DR. ABBOTT, of Pasadena, said that he had given twenty-five years of his life to this subject and felt that he knew something of this subject. He said do not talk of corsets, talk of compression. Teach girls that to expand their vital organs means health, they will then throw away their corsets.

DR. H. M. SHERMAN, of San Francisco, read a paper on

Rachitis in California,

illustrated by photograph. The author was drawn to a study of this subject on account of its relative increase, above all others, in public and private practice; cases under 8 years of age in the San Francisco Polyclinic having increased from 8.8 per cent in 1893 to 32 per cent in 1895. In his private practice from 6.3 per cent in 1893 to 47.61 per cent in 1895. In answer to letters of inquiry sent to physicians, he found that the disease existed all over the State. He stated that bad hygiene, improper food and feeding were the chief causes. There were a few cases of rachitis in breast-fed children reported. He did not believe that the disease was ever due to heredity. The best substitute for breast-milk is cows' milk modified by the Rotch formula. The author urged that a more thorough examination be made of infants brought to physicians for some slight ailment.

Dr. Henry Gibbons, Jr., San Francisco, has seen less cases of rachitis in the past three or four years than formerly. He does not use any prepared food whatever or even condensed milk. He now gives milk prepared by Rotch's formula.

Dr. E. A. Follansbee, of Los Angeles, believed that too frequent child bearing is one of the causes of rachitis. The mother should have nourishing, easily digested food, and in variety.

Dr. Joseph Kurtz, of Los Angeles, differed from Dr. Sherman on the question of heredity being a cause of rachitis. He has under observation two cases of rachitic children. The grandfather of one had rachitis. The second was congenital. On comparison with the fathers he saw a great similarity in every part. This child was from a healthy mother and brought up on breast milk.

Wednesday, April 22.—Morning Session.

Dr. R. F. Rooney, of Auburn, Chairman of the Committee on Medical Topography, Meteorology, Endemics and Epidemics, read a paper on

The Climatology and Diseases of Placer County, California.

This paper is well worth careful reading and consideration as it furnishes a good example of the work which should be done in other portions of California. It appears in this number of the Journal.

Dr. F. D. Bullard, of Los Angeles, in his remarks, stated that there was a great difference between actual and apparent mortality. Consumption was represented in Southern California as more prevalent than in other sections of the Union, in reality it amounted to but one tenth of the rest of the United States. The large number of cases of phthisis in Southern California is due to the fact that this section is the sanitarium for the whole country, to which every one comes who is sick. He thinks that we should find out how long a person has been here, where did he come from and where did he contract his disease.

Consumption is wide spread among the Mexicans because they have prepared a soil for it by dissipation, and by living in surroundings which are not hygienic.

Dr. S. A. Knopf spoke very strongly upon the fact that consumptives take no precautions whatever about expectoration. They expectorate in the street where the sun shines, and where the sun does not shine, and their expectoration dries up and pulverizes and is the cause of many cases of consumption. Sanitary regulations should be made and enforced in Los Angeles if it is to be a true sanatorium.

Dr. W. W. Kerr, of San Francisco, Chairman of the Committee on Clinical Medicine, read a paper on

Tachycardia,

illustrated by photographs of cases. The author, in discussing this rare affection, spoke of the organic lesions attending it, which, on post-mortem, proved to be sufficient to have caused all the symptoms. He gave a classification of the different forms of tachycardia. He gave the history of several of his cases.

Dr. Edwards, of San Diego, said that Dr. Kerr's classification was unusual as it was a departure from that found in the literature on this subject, which generally classifies cases as idiopathic, that is, they have demonstrable lesion. Almost a normal condition in many individuals. It may occur after unusual exercise. He would not classify Dr. Kerr's cases that were attended with lesion as tachycardia, but as endocarditis. Nothnagel and several French observers have carefully studied these cases. In idiopathic tachycardia there is not found after death pronounced lesions. Where lesions are found the tachycardia is only a symptom accompanying the lesion. The center of disturbance in idiopathic tachycardia is in the medulla. The pulse may vary from 100 to 240 in this affection. He has a case of a man with respiration of 100 and pulse over 200.

Dr. D. W. Montgomery, of San Francisco, agreed with Dr Edwards in his views; he had seen the case spoken of by Dr. Kerr, and it was as Dr. Edwards said endocarditis. He understood that Dr. Kerr meant to bring out the fact that in many cases where a rapid pulse could be made out that there was a lesion lying back of it.

Dr. Washington Dodge, of San Francisco, read a a paper on

Edson's Aseptolin.

He treated a series of cases by serum prepared by Dr. A. L. Lengfeld, of San Francisco. Dr. Edson's formula and directions for use had been carefully followed; he therefore believed that he had an identical preparation. In a letter to Dr. Edson he mentioned these facts. In reply, Dr. Edson said *that it was necessary in order to make aseptolin to have a special apparatus designed by him and manufactured in Germany.* The author then substituted aseptolin made by the Equitable Chemical Company, of New York. The results of treatment of ten cases were as follows: In four the number of bacilli had increased, in one case they had decreased and in five there had been no change.

Dr. Kelsey, of Santa Paula, said that it had been claimed that aseptolin was a specific for malaria. He has under observation a patient who had been treated by aseptolin for tuberculosis while living in Phœnix. During the treatment he contracted malaria. When Dr. Kelsey first saw him he had a continuous temperature of 101.5°, even in the morning. He is now under anti-malarial treatment and the temperature is rapidly decreasing.

Dr. Knopf said that he had never dared to use Edson's treatment, as he had heard so many bad things about it.

Dr. Montgomery said that Dr. Dodge had carried on his experiments with great care. He also deprecated Edson's method of forcing a sale of drugs upon the profession and it should be suppressed in some way. Our cases of consumption are no different from cases found elsewhere. Dr. Dodge found no change for the better in any of his cases.

Dr. Davisson, of Los Angeles, said that the judgment of many medical men had been against it from the very beginning, partly owing to the methods employed in springing it upon the public through the public press and the *Medical Record.* He alluded to the scathing criticisms which appeared against it in the *Record* itself. This remedy is not new, it is the French treatment which was given many years ago. By the earnest request of patients he had been induced to try it, but no favorable result followed, on the contrary, he felt that it had done harm.

Dr. Arnold, of San Francisco, had used aseptolin in laryngitis, in one case for three weeks, and in another for five weeks; in neither case did good results follow. He believed it wrong to take away all other remedies when so-called specifics are being used; he had left off the use of lactic acid during the whole period to the great suffering of the patient. It is well known that though it does not cure, lactic acid gives such ease to the sufferer that he can swallow without pain and also sleep.

Dr. M. C. O'Toole, of San Francisco, found that there was a possible source of error in relying too much upon one or two microscopic examinations. The material is not at all times obtained from the same source.

Dr. F. M. Price, of Los Angeles, had no faith in aseptolin. He had tried it in cases by request of patients. He endorsed the remarks of Dr. Davisson. He gave the history of one case now under observation which seems to be improving under aseptolin. When first commencing treatment, temperature 103° F. every afternoon. Subnormal in the morning. At present time 99.8° F. No cough. He has not discontinued other remedies.

Dr. Dodge, of San Francisco: The correspondence that I had with Dr. Edson was sufficient to assure me what his ulterior motives were. When a man states that he would have great fear of any other remedy being used in San Francisco, and that he had observed very toxic result in animals on which fluids prepared by others had been used, and that they had shown death and sudden collapse, and at the same time you are using large doses without observing injurious results, it rather shakes your confidence in the honesty of those statements. I might state that Dr. Edson was very anxious to have a formula of this aseptolin, as manufactured by Dr. Lengfeld, sent to him, suggesting that he might put him on the right track and give him some valuable suggestions as to how to prepare it, in the same letter in which he stated that it could not be prepared without the use of an apparatus specially designed by him and manufactured in Germany. Dr. Lengfeld, some two weeks ago, sent a sample, and he has never heard from him since.

Dr. George Chismore, Chairman of the Committee on Dermatology and Genito Urinary Diseases, read a paper on

Some Points in the Technique of Litholapaxy.

which will appear in a subsequent number of the Journal.

Dr. MacGowan, of Los Angeles, said that stone in the bladder was a very rare disease in Southern California; with all the materials in the hospitals and dispensaries at his command, he had seen but three cases during the past six years. After reading Dr. Chismore's published papers and after examining his form of instruments and learning his views, he had determined to follow in his footsteps. He had found Dr. Chismore's instruments so effective and so simple that he had discarded all other aspirators. For very hard stone he had found some difficulty in using it effectually, but it was probably due to his being unable to exactly handle the attachment. The locking of the instrument gave him some difficulty, but for soft stone it could not be equaled. In one case a piece of chewing gum had been forced into the bladder. He attempted to remove it with the Chismore lithrotite, but it became clogged and he was forced to withdraw it. He then introduced his Guyon lithrotite and that also became clogged; by a plunging motion he freed it, then aspirated the bladder and removed the fragments with the Chismore aspirator. Though possessing a Thompson and Bigelow aspirator he much prefers the Chismore.

Dr. MacMonagle said that he had learned from Dr. Chismore that washing out the bladder was not a good method of treatment. He said that he had consulted Dr. Chismore some few years ago and he advised him not to wash his patient's bladder. He concluded to keep the bladder well emptied and not wash it out. Under this treatment his patient got well more quickly than usual. He did not get the troubles which he is now convinced will arise from washing of the bladder. He thinks that it is a very simple problem that the infectious matter that often remains in the bladder, or often is contained there, is washed into the ureter, and then we have an abscess of the kidney, which is one of the worst conditions connected with genito-urinary surgery. He also spoke of the use of cocaine in the bladder, which he had used in one case with very bad results. On careful examination he found that his patient had excoriation in the bladder. When the mucous membrane in the bladder is not excoriated it is a safe and convenient anæsthetic, otherwise it is dangerous, because the cocaine is quickly absorbed in the system.

Dr. MacGowan thought that washing out the bladder was not only very beneficial, but also that it is perfectly harmless, providing it is gently done. His rule is to carefully cleanse all the parts; then boil a soft rubber catheter before using, use glycerine and wash out the ureter with a solution of salicylic acid; then use a syringe holding 100 cubic centimeters (3 to 4 ounces), attach to a small catheter and introduce very gently the amount the bladder will hold without contraction and allow it to flow out again.

Dr. Chismore, in closing, said that he had a screw attachment constructed for his lithrotite but feared to place in the hands of the general practitioner, for fear that their want of knowledge of the breaking strain of metal might by chance break the instrument in the bladder. He said that the idea in washing out the bladder was to free it from pus, keep it clean and remove if possible the source of infection. The pus is not produced in the bladder; in the great majority of old people it comes from the kidney; pyelitis is already present. The traumatism due to throwing in water is bad, it tends to increase the disturbance. Dr. MacGowan's method may be free from danger; he was glad if one man could do this without injury to the patient, but he had seen such ill effects from its use that he had come to look upon it as bad practice. It is to be especially avoided in tuberculosis of the genito-urinary tract, for the mildest possible manipulation may produce painful results.

Afternoon Session.—**Dr. A. P. Woodward**, of San Francisco, Chairman of the Committee on Publication: The delay in bringing out the *Transactions* was due to the tardiness of members in presenting their papers. The volume this year was larger than usual. The Committee was under great obligations for the very full report of its proceedings to the *Occidental Medical Times*. The total cost of printing, binding, delivering and mailing had been $705.55.

Dr. C. C. Wadsworth, of San Francisco, Secretary of the Board of Examiners, reported the number of meetings held during the year, 15; number of certificates granted, 283; applications refused, 14; applications withdrawn, 4. Total receipts for year $2,900.52; disbursements, same amount. From advertisements in Register and sale of Register, $1,401.50; from applications for certificates, $1,485.

Dr. Wm. Watt Kerr, of San Francisco, Secretary of the Society, reported 276 active members and 33 permanent members. Last June there were 340 members on the roll. During 1895 27 members had been dropped for non-payment of dues. Three members had died.

Dr. J. H. Parkinson, of Sacramento, Treasurer, reported that during the year he had received $1,308.30; and disbursed $1,038.29, leaving a balance on hand of $1,989.67.

Fresno was proposed for the place of next meeting by Dr. Maupin; Dr. C. A. Ruggles asked that Stockton be selected; Dr. Beverly Cole proposed San Francisco. On ballot being taken San Francisco was selected.

Election of Officers.

The election passed off very harmoniously. For President the names of Dr. Henry Gibbons, Jr., San Francisco, and Dr. C. L. Bard, of Ventura, were proposed. Dr. Bard withdrew his name and Dr. Henry Gibbons was unanimously elected President. The other officers elected were C. L. Bard, First Vice-President; W. T. Maupin, Second-Vice President; W. Watt Kerr, re-elected Secretary; H. Bert Ellis, First Assistant Secretary; C. C. Wadsworth, Second Assistant Secretary. For Treasurer the contest was over the incumbent, Dr. J. H. Parkinson, and Dr. Thos. Ross, the latter receiving the most votes on the first ballot was declared elected.

Board of Censors: W. B. Lewitt, W. H. Mays, G. F. Hanson, G. P. Reynolds and T. B. DeWitt.

Board of Examiners: H. H. Hart, J. H. Barbat, J. M. Williamson, W. F. Cheney, W. E. Hopkins and C. C. Wadsworth. Alternates: F. B. Carpenter, A. P. Woodward and W. Dodge.

Thursday, April 23.

Dr. J. H. Jones, of San Francisco, presented a paper on

Ophthalmic Aphorisms.

The author being absent, Dr. W. F. Southard read the essay to the Society.

After concluding the reading of the paper, Dr. Southard stated that be would not offer any special criticisms at this time; although did time permit he would feel inclined to criticise some of the doctor's statements. For example he did not, as does the writer, believe that it is safe practice to advise the general practitioner to use atropia, for the reason that we have a harmless mydriatic in cocaine. One or two drops of a four per cent solution will dilate the pupil in fifteen minutes if no adhesion be present, sufficiently to disclose the presence of adhesions should any be present. Many cases of latent glaucoma have suddenly developed after an instillation of atropia.

Dr. A. L. Kelsey, of Santa Paula, asked if cocaine was not dangerous when used indiscriminately. He asked if it was not dangerous to use it in ulcers of the cornea, on account of its action on the circulation of the cornea.

Dr. W. E. Briggs, of Sacramento, endorsed most of the statements contained in the paper. He thought that there was less harm to the patient from the use of atropia than there was from the fear of using it. Where some cases of glaucoma may be developed on account of the use of atropia, many times the number of cases of blindness have resulted from not using it at the proper time.

Dr. C. L. Bard, of Ventura, Chairman of the Committee on Surgery, read a paper on

The Climatic Surgical Advantages of Littoral Southern California.

After attaining perfection in the technique of aseptic operation, he believed it was not utopian to predict that the surgical advantages of climate will then command attention. The soil and climate of Southern California does not afford a suitable culture-medium for germs. The absence of putrefaction in dead animal matter, the rapidity with which meat and fruits could be dried, show the dryness of the atmosphere and the purity of the air. Malaria is comparatively unknown. The speaker, after a summary of all the advantages which he believed to be in favor of Southern California as the location for operative work, concluded by saying that he believed the time would come when the advantages of this section over any other locality would be fully appreciated. The history of surgery plainly showed the impress of climate and justified the prophecy that Southern California, with its equable temperature, freedom from extreme heat and cold, its perennial sunshine, light rainfall, pure air and comparative freedom from germs, will become famous as a field for operative surgery—especially for conservative surgery, the surgery of the future.

Dr. C. W. Nutting, of Etna Mills: I believe that it has been fully demonstrated within the past few years that extreme care in the cleansing of these parts near the wounded place, extreme care in the cleansing of the surgeon, in other words, complete asepsis, rather than climatic conditions, is essential to the proper healing of wounds. Without asepsis our results would not be as good as in other portions of the country where it is faithfully carried out, in spite of our more healthful climate. If all our surgery was chronic surgery, a patient might be brought to this portion of the State, but what about acute surgery, where the patient must be operated upon at once and wherever he may be?

Dr. W. A. Edwards, of San Diego: A great deal has been written about the climate of Southern California that is misleading. The good has been made too good and the bad smothered over. There is great diversity in the climate. I saw a mail-carrier in San Diego, a few days since, on his rounds in his shirt-sleeves; by night, I am informed, that he had on two overcoats. I think, on the whole, Southern California has the best all-the-year-round climate in the world.

Dr. A. J. Erwin, of Mansfield, Ohio, spoke of the report lately sent out concerning the action of the X-ray on pathogenic micro-organisms. Many eminent men having tried the rays found no effect from them. It may limit the power of the bacilli to some extent, but as these little germs will stand boiling before being destroyed, it would seem that we had little hope of passing any ray or anything through the body that will destroy them.

Dr. Bard spoke of the germicidal action of electricity and ozone, and that in Southern California it was always present in large proportions. It has an inhibitory action upon germ growth which is not observed elsewhere outside of California. Ozone does not exist to such a large extent outside the State of California.

Dr. H. K. B. Wright, of San Jose: I think the valley of Santa Clara is very like the valleys about Los Angeles. The same climatic conditions are present, yet I do not find that wounds heal any more quickly than in the East.

Dr. T. W. Huntington, Sacramento, read a "Report of Cases of Urethral Stricture with Unusual Complications." He gave the history of three cases.

Dr. D. D. Crowley, of Oakland, prepared an exhaustive paper on the subject of "Work in Intestinal and Stomach Surgery." The paper was supplemented by a large number of specimens which showed the various methods of anastomosis between the stomach and portions of the intestinal canal. Direct sutures had been employed in some and the Murphy button in others.

This paper, one of the most valuable presented to the Society from a surgical and scientific standpoint, was not read because it did not seem worth while to read it to an audience which numbered less than a dozen. It was worthy the attention of a full house and every member should have been present.

DR. J. R. LAINE, of Sacramento, read a paper on

Medical Education.

I am convinced that nothing can be effected in California looking to the advancement of medical education that does not recognize fully the equitable rights of each legalized branch of the medical profession. It is well-known that ours is in point of numbers the larger branch of the profession, and that it will, in all probabilties, remain so; and this fact may, in a measure, at least, explain the sensitiveness of the homœopathic and eclectic schools whenever any joint action is proposed. It goes without saying that no measure should be proposed that is not based on equity,—that nothing unfair, or which by any forced construction might appear to be a hardship to either branch, should be advocated by us.

We may not all agree as to the necessity of such absolute fairness, inasmuch as the sentiment that the majority should rule has such firm support; nevertheless, it is essential to the higher development of medical education that all should be placed on the same footing. Furthermore, it is unlikely that the other branches of the profession could be induced to agree on any plan that would not give them equal privileges with ourselves. They are not, however, taken together our numerical equals and the objection may be raised that we cannot with safety place our interests at the mercy of our competitors who are not our equals in point of numbers. On the other hand, they will contend that they cannot go into any enterprise intended to promote their interests, which is based on their numbers alone. These are the real conditions which appear irreconcilable in any probable contingency, nevertheless I am led to entertain the notion that there is a ground that all can stand on if the advancement of medical education is in reality the mainspring of their expressions.

To be brief, I would advocate a censorship by the State of all medical education undertaken within the commonwealth. This censorship to be restricted in its operations to the subjects taught in medical colleges, the time consumed in the course, the preparatory requirements, etc. It should not touch in any particular on therapeutics or materia medica in such schools as adhere to an exclusive dogma or law of cure. It should be enough if we are assured that all students of medicine in the State are on the same basis with reference to time and curriculum with the exceptions indicated. There should be five censors, to be appointed by the Governor, the Attorney-General to be *ex-officio* a member. They should meet as often as might be necessary to ascertain if the course outlined by the State was being followed. They should have power to enjoin in the name of the State any college that failed or neglected to keep up to the standard authorized by the legislature, and to revoke the charter of any contumacious college. There should be uniformity of standard of medical teaching in all the States, and we must come to this or our methods may become a reproach at home and abroad.

However presumptious it may be, I would propose a Federal or United States Board of Censors composed of one representative each from the Army and Navy and the Marine Hospital medical staff corps, and three representative medical teachers from civil life, to be for four years. The Attorney-General of the United States should be an *ex-officio* member of the board. The duties of the board should be of the same general character for the United States as the duties of the State censors would be for their States, with the exception that the United States censors should act in an advisory capacity only towards the States, leaving the actual control of affairs to the States.

The moral influence of Federal censorship would be as beneficial if it had no authority to control absolutely, or even in part, the action of the State boards. The Federal board might properly be invested with authority to determine that graduates in medicine in States that failed to conform to the national standard should be restricted in their practice to the limits of the States in which they were graduated.

The State boards might also be given power to exclude graduates in medicine from colleges in States which did not conform to the Federal standard. But there need be but little apprehension that any State would fail to adopt the standard fixed by the Federal board of censors if their graduates were otherwise to be restricted to the limits of the States in which they were graduated.

I have touched upon the main points only. It will not be long before some effort will be made towards bringing about some uniformity of medical teaching in the United States, so I may be pardoned for taking up the time of the Society in presenting my notions on the subject. Objections to a plan of this general character on the part of any particular school of medicine must of necessity give rise to the reflection that a high standard is not what that school wants as much as to exploit its pretensions.

AFTERNOON.—DR. LEO NEWMARK, San Francisco, Chairman of the Committee on Diseases of the Mind and Nervous System, read a paper on "Certain Diseases of the Nervous System of Children Resulting from Difficult and Premature Birth." This paper was discussed by Dr. Sherman and Dr. Follansbee.

Cerebral Localization in Relation to Surgical Operations was the title of a paper by Dr. J. W. ROBERTSON, Livermore. [This will be given in full in a subsequent number of this JOURNAL.]

DR. NEWMARK thought that we should not be deterred on account of our failures from further operations on the brain, but rather encouraged by the good already obtained. He, personally, had had nothing but failures in his career in brain surgery, but had learned enough to encourage him to risk repeating them. We must understand that the brain is not a uterus, it must not be interfered with too much, it cannot be treated in the same way.

DR. ROBERTSON did not desire to be understood as discouraging further work in brain surgery. He did not believe that it adds either to the advance of scientific medicine or to our own standing in it to claim something which does not exist. If he could definitely locate a brain lesion, and believed that it could be successfully removed, he would say well and good, go ahead; but if he was liable to permanently disable a fellow-citizen or sufferer, he would feel a certain hesitancy in recommending an operation, but no man should go further than his own knowledge would lead him.

The Secretary read the amendment to Article II, Section 3, of the Constitution, changing the words "twenty-five" in the second line to "forty years" proposed in 1895, by Dr. Parkinson, of Sacramento. The change was unanimously adopted. It appears that last year 24 members ceased paying dues, having reached the 25-year limit. Should this go on in like ratio in a few years there will be more members on the free list than are paying dues. For this reason the amendment was proposed.

The report of the Executive Committee, Dr. Henry Gibbons, Jr., Chairman, was then read and with the recommendations contained therein, the report was adopted.

Dr. R. H. Plummer, of San Francisco, Chairman of the Committee on Medical Education and Medical Legislation, presented his report on a Revised Medical Bill, which was unanimously adopted. A resolution was passed by the Society that an effort be made to pass the bill at the next session of the legislature.

By a resolution offered by Dr. Plummer a warrant was ordered to be drawn upon the Treasurer for $100.00 in favor of Dr. Taylor, the attorney for the State Medical Society, for services rendered.

Dr. G. L. Simmons, of Sacramento, presented a report on Expert Testimony, which was unanimously adopted and referred to the Committee on Medical Legislation.

Dr. M. C. O'Toole, of San Francisco, read a paper on the "Utility of the Galvano-Cautery Loop in the Removal of Neoplasms from the Epiglottis and Adjacent Structures." A growth which he had removed *en masse* from the base of the tongue was exhibited.

Dr. Walter Lindley, of Los Angeles, read a paper on

A Case of Acute Uterine Inversion.

As this incident only occurs in about one case of confinement out of 200,000, and as it is nevertheless liable to occur in the work of any general practitioner, I have felt justified in calling attention to my own recent experience.

Case: Mrs. C., age 28; primipara. The labor was normal but somewhat tedious. Position: L. O. A. Child: vigorous boy. Waited until pulsation had ceased before tying the cord. The patient was in good condition and I waited ten minutes before taking any steps toward encouraging the progress of the third stage. I then grasped the fundus through the abdominal wall and began using very moderate friction. The womb contracted for three or four minutes and suddenly, to my astonishment, disappeared. At the same moment the placenta popped out and there was an alarming hemorrhage. Calling for hypodermic of ergot and for hot-water douche I attempted to thrust my left hand in the vagina, but was met by a large tumor at the introitus. Like an electric shock the realization came to me that I had here to deal with an inverted uterus.

The hemorrhage being profuse, without loss of time I coned my left hand and dimpled the center of the fundus with the coapted tips of the fingers and thumb, while making counter-pressure through the abdominal wall with my right hand. By the steady pushing of the left hand, dropping the thumb out of the cone after a slight advance toward the cervix, the uterus was quickly returned to its normal relations.

While my ideas in regard to the length of time taken in this little operation were somewhat hazy, yet it was probably from three to five minutes. The bleeding continued alarming and there was complete inertia of the uterine walls. The patient had already taken ergot hypodermically and by the mouth and as quickly as the uterus assumed its normal position the hot water was turned into the cavity from a fountain syringe through a uterine irrigator; meanwhile using friction with my right hand through the abdominal wall. It was all without avail. The patient's condition was critical. I then had six ounces of acetic acid added to three quarts of hot water and almost synchronously with the first contact of the acetic acid I felt the uterine walls begin to contract. The contest was soon over, the uterine fibers again performed their functions and the hemorrhage ceased. There was no laceration of the cervix. In a few minutes I restored the lacerated perineum with silver wire.

The patient's recovery was rapid and uneventful, the only untoward symptoms being that on the third afternoon her temperature rose to 100 degrees for two hours, and that her milk was so scanty she could not supply nourishment for the child. The restoration of the perineum was perfect.

If there had been any difficulty whatever in dimpling the fundus and pushing it quickly back it would have been better to have adopted the plan usually advised of grasping the fundus in the hand and pressing upwards on the sides with the fingers and thumb thus, as the American Text Book of Obstetrics says, "endeavoring to restore first that portion of the uterus which came out last." There are modifications of these two methods and the physician can doubtless readily see which plan is the best for the case in hand. Where there is complete uterine inertia immediately following labor the method adopted by me is rapid, simple and easily executed.

The *New York Medical Record* of October 26, 1895, contains an interesting account of an operation for inversion of the uterus, which had existed for five days, by Drs. Davis and Packard. The method adopted was this: "The first step consisted of pressing the index and middle fingers firmly and steadily against the presenting fundus, at the same time making gentle counter pressure through the abdominal wall. Gradually the uterine wall yielded, so that at the end of fifteen minutes the two fingers were buried in the tumor as far as the distal joint. The whole hand was now passed into the vagina, and four fingers pressed firmly against the mass, thus pushing it toward the cervix by continuous pressure, the elbow meanwhile resting on the bed as a point of support. With the help of the thumb, some degree of massage to the uterine walls was accomplished, with a view to rendering them more pliable and thus more tractable to further manipulations. Very soon the uterine walls began to soften, whether from the relaxing effect of the anæsthetic, or from the manipulations, or from both combined, and the cervix as felt behind the pubis grew appreciably softer. At the end of half an hour it was possible to carry the fundus before the four fingers fairly into the mouth of the constricting cervix, where they were steadily held as a wedge." This case differs from mine in the contracted condition of the uterus and the length of time after labor.

Gould's Year Book for 1895, quoting Jewett, says: "In a recent study of 100 cases of inversion Beckman found 54 occurred spontaneously, 21 after interference, and in 25 the cause was unknown. He believed the accident to be most frequent in primiparæ and in young women. In this series of cases there were 14 deaths. In 2 of the cases the uterus was irreducible, in 4 the reduction was spontaneous, in 61 there was artificial reduction, and in 19 hysterectomy was performed.

DR. ADELAIDE BROWN read a paper on "The Care of Premature and Feeble Infants." The chief points in these cases were: 1. Securing of a temperature of 95 degrees F., or slightly lower. 2. Preserving its strength. 3. Nourishment. In lying-in hospitals where these points could be carried out, saving of life was greater than in private practice. She showed, by relating a case of her own, what could be done in an emergency even in private practice, in saving premature born infants' lives. A cracker box filled with soft absorbent paper, and a large hot water bag made a good incubator in which the baby was kept for three weeks, and it did well. In a case of twins, also prematurely born, the upper portion of a telescope basket lined with blankets was used. The infants were enveloped in cotton and placed in this receptacle. The other half of the basket containing hot-water bottles was placed beneath the first basket. These children also did well. The writer found that sweet oil was better in these cases than the traditional first water bath. Owing to the difficulty of feeding in the ordinary manner she had adopted the Rotch formula.

Dr. T. B. DeWitt, of San Francisco, commended the doctor upon her success.

Dr. J. H. Utley, of Los Angeles, reported that two papers had been offered to the Committee on Prize Essays; one on the "Study of Anæsthesia," and one on "Climatology of California" with charts. The latter was awarded the prize. The author is Dr. C. Max Richter of San Francisco. The report was adopted and the Secretary instructed to pay the doctor $100.00.

President **Le Moyne Wills** then introduced to the members President-elect **Henry Gibbons, Jr.**, who responded in a felicitous manner. He returned hearty thanks to the gentlemen who had nominated him, and to the Society for having elected him. He mentioned the fact that when he first came to this State no medical society was in existence. There had been one in San Francisco and Sacramento, and there had been a State Society formed, but all had previously disbanded. Societies were reorganized in San Francisco and Sacramento in 1868. He had been a member of the San Francisco Society since that date nearly 25 years. He spoke of the great value of medical societies to its members.

Dr. W. E. Hopkins, of San Francisco, Chairman of the Committee on Laryngology, Rhinology and Otology, read a paper on "The Value of the Operation for the Removal of one or more of the Bones of the Middle Ear and Report of Fifteen Cases." After speaking of deafness and the pathological changes existing in these cases, he took up the question of operative interference. He said that he had tried the operation with which Dr. Samuel Sexton, of New York, had become identified, and had such poor success that he had about determined to abandon the operation in the class of cases for which it was first thought to be best adapted. He then gave a table of his cases. Hearing was permanently improved in one. Tinnitus was greatly relieved in five cases and benefited in all others with one exception. He concluded that in chronic tinnitus it was justifiable.

Dr. Babcock, of Los Angeles, had never tried the operation; he was unfavorably impressed with it since very slight, if any, improvement, had been permanent in Dr. Sexton's cases.

Dr. W. F. Southard said that we should feel under great obligations to Dr. Hopkins for presenting this paper, for it is in accord with observations that have everywhere been made during the past year. He entirely agreed with the speaker that the chief value of the operation, whatever it may be in the future, is now done for the relief of tinnitus. He had operated upon one case the past year for tinnitus with success, the relief being permanent.

The minutes were then read and the Society adjourned.

During the sessions the following physicians were elected members: A. L. Macleish, Los Angeles; A. L. Kelsey, Santa Paula; John H. Love, Ventura; J. A. Trueworthy, Los Angeles; George A. Hare, Fresno; F. L. Adams, Oakland; S. Knopf, Los Angeles; Theodore Olmstead, Oakland; W. T. Maupin, Fresno; Murry L. Johnson, Oakland; A. M. Stafford, Rocklin; W. B. Sawyer, Riverside; Chas. E. Winslow, Los Angeles; E. A. Bryant, Los Angeles; Mary A. Fletcher, Alameda; W. B. Stephen, San Francisco; Clinton H. Lubbock, Alameda; Clara W. Murphy, Los Angeles, G. L. Hutchinson, Colton; John C. King, Banning; David Gochenaur, San Diego; J. P. Hinckley, Fillmore; W. O. Smith, Alameda; Bertha A. Saunders; San Francisco.

The following were reinstated: John L. Dryer, Santa Ana; M. F. Price, Los Angeles; W. W. Hitchcock, Los Angeles; Robt. O. Baldwin, Oakland; E. A. Follansbee, Los Angeles; J. H. Soper, San Francisco; J. H. Johnson, Los Angeles; Thos. E. Ellis, Elsinore; A. C. Rogers, Los Angeles; D. B. Van Slyck, Pasadena; D. G. MacGowan, Los Angeles; G. W. Lasher, Los Angeles; P. C. Remondino, San Diego; C. C. Rogers, Bakersfield.

Whooping Cough.—The *Medical and Surgical Reporter* takes the following formulæ from the *Rivista Clinica Terapeutica:*

℞	Creasote	gr. iv
	Sulphonal	gr. iv
	Syrup of Tolu	℥v

M. Sig:—Teaspoonful every two hours.—*Med. Bulletin.*

ALUMNI ASSOCIATION OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF CALIFORNIA.

The annual meeting of the Alumni Association of the Medical Department of the University of California was held at the rooms of the Dental College, corner of Market and Taylor streets, Friday evening, April 10th, at 8 P. M. Minutes of the previous meeting were read and, on motion, adopted.

The following were nominated and elected officers for the ensuing year: Dr. J. M. Williamson, President; Dr. Daniel E. F. Easton, Vice-President; Dr. L. M. F. Wanzer, Secretary; Dr. F. E. McCullough, Treasurer. Executive Committee—Dr. H. Kugeler, Dr. Harry A. L. Ryfkogel, Dr. Chas. S. Maguire.

The Committee on Revision of Constitution and By-Laws was granted further time.

The question of the annual banquet was discussed. Drs. D'Ancona, McMurdo and Barbat were appointed a Committee of Arrangements with full power to act.

Dr. Ryfkogel read a paper on

FORMALINE

As an ideal preservative and fixing agent for specimens of organic life. He held that this preservative affected animal pigment but slightly and caused no shrinkage. He finds that solutions of 1 per cent strength, *i. e.*, one volume of formaline to forty of water, preserve gross specimens of tissue indefinitely and so thoroughly that microscopic sections may be prepared therefrom at any time. Solutions of even less strength may be used, but with less satisfactory results as regards preservation of color and minute detail. When the object to be preserved has many delicate colors that must be shown, a stronger solution, *e. g.*, 4 to 8 per cent, had better be employed. Formaline gives beautiful results in the preservation of the central nervous system, showing very distinctly the white and gray matter. For this purpose, however, it has two objections: first, it causes a certain amount of swelling; and second, the grey matter becomes very brittle. These may both be remedied by making up the 1 per cent solution in 5 per cent alcohol. The objection to formaline is the irritating qualities of its vapor when inhaled. This, however, is not troublesome in the solutions ordinarily employed. Several specimens were shown to illustrate the advantages of formaline.

By invitation, a universal splint, adjustable, was exhibited by Mr. R. Hoppe.

The meeting adjourned *sine die*.

L. M. F. WANZER, Secretary.

REPORT OF THE STATE BOARD OF HEALTH.

By J. R. LAINE, M. D., Secretary State Board of Health.

DEATHS.—Reports from sixty-seven cities, towns, villages and sanitary districts, aggregating a population of seven hundred and tweny-two thousand eight hundred and four, show a mortality of nine hundred and ninety-one—a death-rate of 1.37 per thousand for April, or 16.44 per thousand per annum.

There were one hundred and eighty-three deaths from consumption, seventy-five from pneumonia, twenty-seven from bronchitis, seven from congestion of the lungs, one from diarrhœa, three from cholera infantum, sixty-nine from other diseases of the stomach and bowels, five from diphtheria, three from croup, one from scarlatina, four from measles, two from whooping-cough, seventeen from typhoid fever, four from malarial fevers, five from cerebro-spinal fever, forty-five from cancer, four from erysipelas, one hundred and three from diseases of the heart, six from alcoholism, four hundred and twenty-seven from all other causes, five of which were from la grippe, and one from leprosy.

PREVAILING DISEASES.—Reports from thirty-five localities, outside of the larger cities and towns, give forty-four cases of pneumonia, one hundred and nine of bronchitis, fifteen of pleurisy, fifteen of congestion of the lungs, thirty-two of diarrhœa, twenty of dysentery, three of cholera morbus, two of cholera infantum, three of diphtheria, four of croup, ten of scarlatina, one hundred and one of measles, one of smallpox, twenty-two of whooping-cough, one hundred and ninety-eight of la grippe, twelve of typhoid fever, ninety-six of malarial fevers, eighteen of erysipelas, one hundred and six of rheumatism, fifty of neuralgia, one hundred and fourteen of tonsilitis, and forty-two of pharyngitis.

Measles was reported epidemic at Cottonwood, Colton, Red Bluff and Redlands.

Whooping-cough was reported epidemic at Knight's Ferry, and one case of smallpox was reported at the Napa County Infirmary.

Mumps was epidemic at Williams.

ADVICE TO BICYCLISTS.—Rocheblave gives to bicyclists the following good advice from a medical standpoint: 1. No one should ride until after an examination by a physician. This examination should be made both before and after a walk or run, for some cardiac lesions only manifest themselves after a state of fatigue. 2. Ride no faster than 12 kilometers an hour. 3. As far as possible guard against the desire to ride any faster. It is very difficult not to give way to the "delirium of swiftness." With a light machine on a good road an amateur may easily make 25 kilometers an hour. This is too much, for the pulse is increased to 150, even at 14 and 16 kilometers an hour.

Correspondence.

QUALIFICATIONS FOR THE PRACTICE OF MEDICINE AND SURGERY IN TURKEY.

The only medical school in Turkey is located at Constantinople, the Imperial School of Medicine of the Ottoman Empire. Those who wish to practice medicine in Turkey must pass an examination in the chief branches of medicine and surgery at this school. Before being admitted to the examination the candidate must present a diploma from a recognized medical school. By a recognized medical school is understood one that is recognized by the respective Government of the country in which the school is located. That the diploma is issued by such a school must be certified to by the Consul-General at Constantinople. A certificate of practice, together with a petition asking to be admitted to an examination, must also be presented to the director of the school and a fee of seven Turkish liras. If the credentials presented have been satisfactory the candidate is admitted to an oral examination in anatomy, physiology, chemistry, therapeutics, practice of medicine and surgery. If this examination is passed satisfactorily a permit to practice is granted. Failing to pass this time a more extended examination must be submitted to.

Having passed the examination successfully, the following oath is taken before the director of the school in the presence of witnesses: "Under auspices of His Imperial Majesty, the Sultan, you have studied medicine in the Imperial School of Medicine and you have been honored with a diploma. Do you now solemnly and truly swear that you, when invited, will treat all, be they poor or rich and of whatever nationality, with equal care and attention; that you will never give any medicine which will cause abortion; that you will have a consultation with other doctors when the case requires it; that you will be careful in administering medicines which are of a dangerous nature, and that you will always take great care of the property of the State; that you will be obedient to the laws of the country and to His Imperial Majesty, the Sultan, and comply with all regulations ruling the practice of medicine in the Ottoman Empire."

CARL C. HANSEN, M. D.

Mosul, Turkey.

Extracts.

Honors to Dr. Argyll Robertson.

Dr. Argyll Robertson has been honored by the Edinburgh University with the degree of LL.D. In presenting him, Professor Grant said—There are none upon whom the University can more fittingly bestow its highest honor than those who have risen to pre-eminence in that noble profession for which the bulk of our students are occupied in equipping themselves. In the special Department of Ophthalmology, Dr. Argyll Robertson—it is indeed superfluous to remind an Edinburgh audience—holds a unique position. Countless voices will bear grateful testimony to the skill of the practitioner whose healing hand has literally lightened the darkness of their lives. But his reputation rests perhaps in a greater degree on his work as an original investigator. He has examined with fruitful results the mode in which the eye accommodates itself to the objects near and distant, and the effects of medicine on that adjustment; and, above all, he has discovered that certain symptoms of the pupil are indicative of a disease of the spinal cord. These symptoms have now in the medical world become associated with Dr. Argyll Robertson's name. The regard in which he is held is testified to by his appointment to many distinguished offices. He was for several years lecturer on ophthalmology in the University of Edinburgh, and it was with a lively regret that the University received last year his resignation of an office which he had discharged with such acceptance. He has enjoyed the rare distinction of acting as President of the International Ophthalmological Congress, and he is the only oculist not resident in London who has been called to fill the Chair of the Ophthalmological Society of the United Kingdom. (Applause.) To these distinctions, sir, I now ask you to add that of Doctor of Laws in this University. (Applause.)

At a recent meeting of the Trustees of Jefferson Medical College, Philadelphia, the honorary degree of LL.D. was conferred on Dr. John Collins Warren, Professor of Surgery in Harvard University.

By prophylactic measures relating to the sputum of consumptive inmates, the mortality-rate from tuberculosis in Prussian prisons has been reduced to about one-half what it was ten years ago.

Literary Department.

Under the charge of W. F. McNUTT, M.D., M.R.C.S., Edin., etc.
Professor Principles and Practice of Medicine in the Medical Department
University of California, etc.

CONSUMPTION, ITS NATURE, CAUSES AND PREVENTION, with an outline of the Principles of Treatment, for all classes of readers. By LEONARD M. PLAYTER, M. D., author of Playter's Physiology and Hygiene; editor of the *Canada Health Journal.* Toronto: William Briggs. 1895. For sale by Popular Book Store, 10 Post street, San Francisco.

DONT'S FOR CONSUMPTIVES; or, the Scientific Management of Pulmonary Tuberculosis. How the pulmonary invalid may make and maintain a modern sanatorium of his home, with additional chapters of how every consumptive person may apply the forces of nature to assist and hasten recovery, and also how the defects of heredity may be best overcome. BY CHAS. INGRAHAM, M. D., Binghampton, New York. February, 1896. For sale by Popular Book Store, 10 Post St., San Francisco.

We would like to place these two books in the hands of every physician, every consumptive and every legislator in our tubercular-cursed country. Physicians may say that they contain nothing they do not already know, such being the case, the books may stimulate them to a sense of their duty; they contain much that consumptives do not know, very much that the legislature ought to know, and many important precautions against the spread of consumption that physicians neglect to put into practice. If these books meet with a large sale, Drs. Ingraham and Playter will save more lives from death by consumption than all the physicians in the United States will save by curing the disease. Consumption will never be stamped out by remedies but will finally be by prevention. If the money that is spent in building consumption hospitals, and in treating incurable cases of consumption, was expended in teaching a knowledge of its causes and how to prevent its propagation, we might lessen the number of deaths. Both of these books are written clearly and concisely. The authors have not indulged in technicalities. The layman will find that he can understand them without the slightest difficulty. They will be instructive to all intelligent readers.

REPORT OF THE COMMISSION OF EDUCATION for the years 1892 and 1893. Washington: Government Printing Office. 1895.

This is a very important report and contains much valuable information on our own system of education as well as on those of foreign countries. The people of the United States may well be proud of their public school system. Since 1880 there has been a steady decrease in the percentage of male teachers, while the female teachers have increased about 70 per cent. This certainly is as it should be, since over 90 per cent of the 15,000,000 pupils enrolled in the schools and colleges of the land are in the elementary grades. The total revenues for the years 1892–93 was $165,000,000, one-fifth of which was from State taxes. $104,000,000 was paid for teachers' wages. In 1890, there was more than 6,000,000 of our population over ten years old who could not read and write. "The State having the smallest percentage of illiteracy is Nebraska, with 3.1, and that having the largest, Louisiana, with 45.8." The percentage of illiterates in California is 7.7. In 1892–93, there were 19,752 medical students, 7,839 theological and 6,776 law.

ELECTRO-THERAPEUTICAL PRACTICE. A reference guide for physicians in the use of electricity. By CHAS. S. NEISWANGER, Ph. G., author of "Suggestions in Electro-Therapeutics," Professor of Electro-Physics, Post Graduate Medical of Chicago. Chicago. 1895. For sale at Popular Book Store, 10 Post St., San Francisco.

The author's object in writing this little book is "as an aid to the more rational use of electricity in the medical profession." He advances no theories, no pathology, and wages no war on those who differ with him. He evidently spends all his energy in applying electricity to every ailment that flesh is heir to. If he has any doubts about the curative effects of electricity on any disease, he discreetly keeps them to himself. The book contains some very good practical suggestions.

A TEXT BOOK UPON THE PATHOGENIC BACTERIA, for Students of Medicine and Physicians. By JOSEPH MACFARLAND, M. D., Demonstrator of Pathological Histology in the Medical Department of the University of Pennsylvania; Fellow of the College of Physicians of Philadelphia; Pathologist to the Rush Hospital for Consumptives and Allied Diseases. With 113 illustrations. Philadelphia: W. B. Saunders, 925 Walnut Street. Price, $2.50. 1896. For sale at the Popular Book Store, 10 Post St., San Francisco.

While this book is not very large, 359 pages, it is very complete; clearness and conciseness are the features of the work. The author evidently possesses excellent descriptive faculties. There are few books on this subject that can afford to the students such helpfulness as this, the difficult technique of this branch of medical study, if not made easy, is at least made plain and robbed of its mysteries. It is finely illustrated and excellently printed. The student or physician who wishes to work on this subject cannot do better, and can very easily do worse than select this text book.

INFANTILE MORTALITY DURING CHILDBIRTH, AND ITS PREVENTION. By B. S. BROTHERS, M. D., Visiting Gynecologist to Beth Israel Hospital, New York, Etc. WILLIAM FURNESS JENKS Prize Essay of the College of Physicians of Philadelphia. Cloth, 8 vo.; pp. 171. Price, $1.50. Philadelphia: P. Blakiston Son & Co. Chicago: The W. T. Keener Co., agents. 1896. For sale at Popular Book Store, 10 Post St., San Francisco.

This is a very valuable contribution to medical literature. It is a prize essay and worthy of commendation. The whole etiology of infantile mortality is fully set forth in thirty-eight chapters. One is surprised to see how many children are still-born, or die a few hours after birth from cerebral apoplexy. The general practitioner especially should note this cause of death. How many children are dragged into the world with the forceps, still-born? Post-mortem would show hemorrhage of brain and perhaps fracture of the skull, but no post-mortem is made; death certificate, "still-born." Now that the mortality from Cæsarian section and symphyseotomy is reduced to a minimum, would it not be better to resort to these operations more frequently and drag fewer still-born babies into the world. He has tabulated forty-seven autopsies made on newly-born children. There was hemorrhage, cerebral or meningeal, in twelve; several died from catarrhal inflammation a few days after birth, and due to the carelessness of the physician or ignorance of the midwife. This book raises the important questions, viz: How much longer is the ignorant midwife to be tolerated? Is the State not responsible for the death of a new born child, whose life is sacrificed by the uneducated midwife? Is it not criminal on the part of the medical societies to send their graduates out to practice medicine, who have never conducted or seen conducted a case of labor? We most heartily recommend this work.

DR. KING'S MEDICAL PRESCRIPTIONS, containing the favorite formulas of the most eminent authorities, collected from their published writings. By JOHN H. KING, M. D. Second edition. New York: Bailey & Fairchild. For sale by Popular Book Store, 10 Post St., San Francisco.

This book is not intended solely for physicians. The author says: "To all classes, physicians and laymen, I present this work, as simply an aid to them." There are many prescriptions and bits of advice that both physicians and laymen will find of use to them.

THE INTERNATIONAL MEDICAL ANNUAL AND PRACTITIONER'S INDEX. A Work of Reference for Medical Practitioners. Contributors: Herbert W. Allingham, F. R. C. S.; Fancourt Barnes, M. D.; Prof. H. D. Chapin, M. A., M. D.; E. Hurry Fenwick, F. R. C. S.; W. Soltau Fenwick, M. D., M. R. C. P.; E. De La Granja, M. D.; F. De Havilland Hall, M. D., F. R. C. P.; J. Dundas Grant, M. D., F. R. C. S.; Prof. G. M. Hammond, A. M., M. D.; Prof. H. A. Hare, M. D.; Vaughan Harley, M. D., M. R. C. P.; Irving S. Haynes, M. D.; Frank W. Jackson, M. D.; Oscar Jennings, M. D., M. R. C. S.; Robert Jones, F. R. C. S.; Priestley Leech, M. D., F. R. C. S.; Prof. Bransford Lewis, M. D.; William Milligan, M. D.; N. Chandra Mitra, M. A., M. B.; Thomas More-Madden, M. D.; Prof. William Osler, M. D.; Prof. Theophilus Parvin, M. D.; Jos. Priestley, B. A., M. D. D. P. H.; John Ridlon, M. A., M. D.; Prof. A. W. Mayo Robinson, F. R. C. S.; Prof. Robert Saundby, M. D., F. R. C. P.; Prof. Geo. E. De Schweinitz. M. D.; Henry Sewill, M. R. C. S., L. D. S.; R. Shingleton Smith, M. D., B. Sc.; W. Ramsay Smith, M. B., B. Sc.; Langford Symes, L. R. C. P. I.; John W. Taylor, F. R. C. S.; George Thin, M. D., L. R. C. S.; William Thorburn, F. R. C. S., B. Sc.; Prof. Unna, M. D.; Norman Walker, M. D., F. R. C. P.; P. Watson Williams, M. D. 1896. Fourteenth year. New York: E. B. Treat, 5 Cooper Union. Chicago: 199 Clark street. Price, $2.75. For sale at Popular Book Store, 10 Post St., San Francisco.

I always feel sorry for myself when I think of the years before the Annual was published. Hours of time were consumed in looking for what can be found in the Annual in a few minutes. It is essential alike to the general practitioner and specialist. It has become the progressive man's intelligencer.

REPORT OF THE SCIENTIFIC STUDY OF THE MENTAL AND PHYSICAL CONDITIONS OF CHILDHOOD, with particular reference to children of defective constitutions and with recommendations as to education and training. The report is based upon the examination of 50,000 children seen in 1892–93. London: Published by the Committee, Park Museum, Margaret street. 1895. For sale at the Popular Book Store, 10 Post St., San Francisco.

The Committee cannot be too highly extolled on the results of its labor of love. It is a most important matter for the State as well as of vital interest to the individual that mental deficiencies should be recognized in early childhood. It is now well known that special training can do much for these unfortunates when afforded in child-life. The mentally deficient if allowed to grow up uncared for often cost the State more than it would have cost to have trained them to a life of usefulness, besides the harm they may do to society. The Committee deserves well of the intelligent, the humane and the political economist.

OBSTETRICAL POCKET PHANTOM. By DR. K. SHIBATA, Specialist in Gynecology and Obstetrics, Tokio, Japan; Physician to the Women's Clinic at the University at Munich. Translated from the third edition by ADA HOWARD-AUDENREID, M. D., Physician to the Children's Clinic at the Woman's Hospital, Philadelphia. Philadelphia: P. Blakiston, Son & Co. 1895. For sale by Popular Book Store, 10 Post St., San Francisco

This will be found a most convenient and useful aid for the study of this branch of knowledge. It makes an excellent substitute for the more expensive and elaborate manikins.

TWENTY-FIRST ANNUAL REPORT OF THE SECRETARY OF THE STATE BOARD OF HEALTH OF THE STATE OF MICHIGAN, for the fiscal year ending June 30th. 1893. By authority. Lansing: Robert Smith & Co., Printers and Binders. 1895. For sale at Popular Book Store, 10 Post St., San Francisco.

According to the report, consumption is responsible for nearly as many deaths as are diphtheria, typhoid fever, scarlet fever, measles, whooping-cough and small-pox. Strange as it may seem, consumption is the only one of these contagious diseases that the people do not fear to contract. It seems to be considered a dispensation of Providence.

Locomotor Ataxia.

℞	Argent. nitrat..................	gr. x
	Confect. rosæ.............. ...	℈i.

M. et ft. pil. no. xl. Sig. One or two pills three times a day. Cease giving after a few weeks, to prevent argyria.—DA COSTA, *Medical Record.*

℞	Argent. nitrat................	gr. x
	Cinfec. rosoe.................	℈j.

M. Ft. pil. no. XL. Sig. One or two pills three times a day. Cease after two or three weeks to prevent argyria.—DA COSTA, *Medical Record.*

R	Acetacilin	
	Boric acid	aa 40 per cent
	Tannic acid	20 per cent.

M. A very useful powder for surgical diseases.—DR. W. F. MCNUTT, San Francisco.

Therapeutic Notes.

Regulation of Midwives.

The Philadelphia Board of Health has issued as instruction to all midwives, nurses, and others having the care of infants the text of a recent act of assembly for the prevention of blindness in new-born infants. This act makes it the duty of a midwife, or nurse, or other person having the care of an infant to report in writing to the health officer or a legally qualified practitioner of a city, town, or district in which the mother of a child resides, any inflammation, swelling, or redness of one or both eyes of an infant at any time within two weeks after birth. Immediately upon the receipt of such report the health officer is to notify the parents of the infant of the danger to the eyes and enclose directions for proper treatment. Failure to comply with the provisions of this act is punishable by a fine not exceeding $200 or imprisonment not exceeding thirty days or both. The nurses are instructed to wash the eyes of the new-born infant with clean, warm water, using a soft cotton cloth. If the eyes should appear red or inflamed the attention of a physician must be called, while in the mean time they should be washed out freely with a weak antiseptic solution, such as salt and water (one teaspoonful to the pint).—*Medical Record.*

Thyroid Extract and Goitre.

In Dr. S. Solis Cohen's clinic recently the tendency of thyroid extract to aggravate the symptoms of exophthalmic goitre in certain cases, was strikingly illustrated. A patient who had been improving under the use of thymus extract, but had come to a standstill, was tentatively placed upon the thyroid preparation. She returned in about two weeks with the goitre much enlarged, firmer in consistence and all the nervous symptoms exaggerated. Dr. Cohen remarked that his experience went to show that in exceptional cases thyroid preparations might benefit goitrous patients, both those with simple goitre and those with Grave's disease; but that as a rule the effect was *nil* or not good. He could give no definite rule for discrimination, although the effect of temperature upon the patient might be found to be of use; it being his present impression that those who were unduly susceptible to cold would do well, and those who were unduly susceptible to heat would do badly under treatment with thyroid preparations.—*The Philadelphia Polyclinic.*

Familiar Faces in New Places.

This applies to what we saw in connection with the recent meeting of the State Medical Society at Los Angeles. Worden & Co., of San Francisco, with their usual enterprise, displayed several laboratory departments in full working order, having transplanted machinery, motors, etc., etc., as well as operatives to the City of Angels, during the session. Young ladies in dainty caps made pills, tablets and gelatin capsules, eliciting great admiration by their dexterous manipulations. Malto Fer was dispensed with liberality and many medicos availed themselves of the opportunity to partake of this exquisite wine tonic after the mental strain of the sessions.

A Doctor's Carbuncle.

I thank you for the box of Sennine. It came just in time for me to try it on myself in a maliginant carbuncle which had caused me much suffering. It affords me pleasure to state that Sennine has benefited me more in three or four days than any of the many antiseptics I have used, among which were iodoform, antifebrine, aristol, so you can see that Sennine has the best standing with me, and I cheerfully commend it to my brother practitioners. Yours very truly,

R. M. Wells, M. D., Plant City, Fla.

Dios Chemical Co., St. Louis, Mo.

A Handsome Price List.

The handsome, useful and exhaustive price list for 1896 which Parke, Davis & Co. are distributing to the physicians and pharmacists of the country bears on its title page striking evidence of a much-merited prosperity, for we observe that they have established a branch in New Orleans. Moreover, since the list was printed, they have opened still another branch, at 8 South Howard street, Baltimore, Maryland. Some idea may be gained of the magnitude which this enterprising house has achieved when we state that the list now before us embraces over six thousand different products, comprising some twenty-nine distinct and complete lines of pharmaceutical preparations. Aside from the priced catalogue, the list contains much valuable information, general, botanical, pharmaceutical, and therapeutic.

It is hardly necessary to remind our readers that the name of this firm has become a synonym for all that is honorable, upright, progressive and scientific in manufacturing pharmacy. No one will begrudge them their wonderful success when he pauses to reflect that their laurels have been won during twenty-five years of crucial testing at the bedside and in the clinic.

The Treatment of Typhoid Fever.

While it is true that the modern treatment of typhoid fever is chiefly dietetic, there are a number of drugs by which the various symptoms may be modified or relieved. Thus, it is sometimes necessary to administer remedies to reduce high fever, to relieve sleeplessness and quiet the nervous system, and to exert an antiseptic action upon the intestinal canal. Some authors have claimed that all these effects are embodied in a single remedy, namely, Phenacetine. Dr. Giovanni, (*Gas. d. osped.* No. 35, 1896), has recently reported that for the past four years he has employed Phenacetine exclusively in the treatment of typhoid fever, with very favorable results. Among two hundred cases in private practice only six died and these fatalities were mainly to be ascribed to unfavorable conditions of nutrition and hygiene. In the majority of cases (123) the typhoid was complicated with pulmonary and meningeal symptoms. The author believes that in genuine ileo typhoid he obtained a real abortive action from the use of Phenacetine. As soon as the diagnosis of typhoid has been made he orders 3.0 gm. in six doses, one powder to be taken every four hours and continued in this manner for the entire first week. In children and aged persons the daily dose is reduced to 2.0 or 1.5 gm. daily according to the strength of the patients. After the lapse of the first week he continues the drug regularly in 0.5 gm. doses every six hours to adults, and to children and the aged in 0.25 gm. doses as long as the thermometer shows a higher temperature than 38° C. Only very rarely he observed cyanosis of the face, which, however, was transient; and in not a single case did vomiting or cutaneous eruptions occur, as well as nephritis hematuria or collapse. A remarkable phenomenon in all these cases was the profuse diaphoresis which sometimes required reduction of the dose. In general the tolerance for the remedy is excellent and the disease generally runs a favorable course. In several instances of recurrences from dietetic errors and auto-reinfection Phenacetine likewise proved very efficient. The pronounced abortive action of Phenacetine is most readily explained on the ground of its diaphoretic property and the investigations of Omeirolo have shown that diaphoresis is one of the most important preventives against infection and toxæmia. Aside from this the author believes that Phenacetine undoubtedly is taken up into the blood and serves to neutralize the effect of the typhoid poison.

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Original Articles.

SOME POINTS IN THE TECHNIQUE OF LITHOLAPAXY.

By GEO. CHISMORE, M. D., San Francisco.

[Read before the California State Medical Society, Los Angeles, April 22, '96.]

Experience has led the author to divide cases of litholapaxy into two classes: 1st. Those in which the prostate gland is normal in size; 2nd. Those in which it is enlarged. In the former, the operator may confidently rely on clearing the bladder at one sitting; in the latter, several crushings may be required, and the patient should be distinctly informed of that fact before the operation in order that he may not, in his disappointment at not being entirely relieved at once, refuse to submit to further attempts.

In cases where the prostate is normal, and the urethra large enough to admit a No. 14 Van Buren sound, no preliminary treatment is required. Having discovered a stone, determined its location and size as far as possible with the searcher, it is my custom to at once, if there be no contra-indication, proceed to operate as follows: The patient in the usual lithotomy position; a small lithopaxy catheter is introduced, and, after emptying the bladder, it is withdrawn until the eye is just within the external end of the prostatic urethra; then, with a common, soft, rubber-tipped P. syringe, an ounce or an ounce and a half of a 4 per cent solution of cocaine muriate is thrown in, a syringe full at a time. After leaving the catheter, the fluid, on its way to the bladder, laves the deep urethra, thus giving the needed anesthesia in that region. Only this quantity is used because I find it much more convenient to operate in a "small bladder." As soon as this is done, my lithotrite is *very gently passed*. Usually considerable opposition is encountered at the anterior triangular ligament, and it is important that no force should be applied in this locality, as no part of the genito-urinary tract is more resentful. A little time for spasm to relax, slight alteration in the direction of the beak of the instrument, until at last it slips in without the slightest pressure.

Once within the bladder, there is usually but little difficulty in seizing the stone. If soft enough, it is crushed by means of the hands alone; if not, the rack and pinion is brought into play. Pieces nearly always gravitate to the locality originally occupied by the stone, hence they should be sought for there. If the beak of the lithotrite is reversed, the operator should always bear in mind the fact that the line of the reflection of the recto vesicle fold of the peritoneum fixes in a measure that portion of the bladder to which it is attached; below and above this transverse line, the jaws of the instrument will easily push the walls of the viscus before them, when, if closed, a fold of the bladder is almost surely included in the bite. A knowledge of this fact, together with the easily recognized "feel," will serve to prevent injury from this source. If both jaws happen to be below the vesico-rectal fold on attempting to open the instrument a false sense of sacculation is the result. Crushing is continued so long as fragments are readily found. If the stone is small the operation may be completed without removing the instrument, but if it is large it is better and saves time to remove the lithotrite from time to time and aspirate through a tube as large as the urethra will admit. This is especially the case with a large uric acid stone. During the pulverization of such a calculus a kind of mortar is formed by the fine fragments that will clog any but a fully fenestrated lithotrite, and even then masses as large as will pass through the fenestrum are packed together; apparently, the finer it is crushed the more it tends to adhere in tenacious lumps. Working the lithotrite with quick, light strokes will do more to clear it when it clogs than any other manœuver with which I am acquainted. I always begin with my own lithotrite; if, in my judgment, the stone is beyond its power, I back out, and make a preliminary crushing with a stronger one. Until recently Bigelow's has served the purpose, but lately Dr. Forbes, of Philadelphia, has placed at our disposal a lithotrite that is a very great improvement on its predecessors in the matter of strength. I have used it in one case of a large and very hard stone, found it work admirably and am deeply indebted to its inventor.

When preliminary crushing is required, I complete the operation with my own lithotrite, washing out the debris while the crushing is going on; that is, when a bite is taken, the jaws are opened, a few aspirations made, fragments washed out, and at the same time a new piece is sucked into the grasp, which is crushed by my assistant as soon as seized.

When the bladder is empty, the patient is sent home, with directions to stay in bed until the soreness is gone.

Such an operation takes but a few minutes, can be safely done in office in most cases, is almost devoid of danger and nearly painless; but little, if any, blood is drawn; but one assistant is needed, and I have made it time and again without any. Beyond a little frequency and some ardor in urinating, which demulcents and two or three days in bed will subdue, recovery is uninterrupted. Sometimes a few grains of sand are passed, occasionally small fragments voided; rarely one remains of sufficient size to require a second crushing; this is a matter of a few moments only and may be done without anesthesia.

When the prostate gland is hypertrophied, we are confronted with a different state of affairs. In the greater number of such cases, "catheter life" has begun, and the urethra must be promenaded by an instrument at short intervals after the stone is removed; therefore, it becomes doubly necessary to avoid injuring the canal, and the operation should not be prolonged to the extent of greatly irritating it. Besides, the intruding mass of the prostate has so altered the topography of the interior of the bladder that portions, varying in degree, but often of great extent, are quite out of reach of the beak of any lithotrite, thus forming pockets that may so effectually hide a fragment that no reasonable endeavor can dislodge it. It is here that the principle of making the piece hunt the instrument, instead of the instrument hunting the piece, by means of the stream from the aspirator passing in and out in my lithotrite, is of the greatest assistance, and both stones and fragments may be caught with it that no other known to me could seize.

When a patient presents himself with hypertrophy of the prostate gland and a stone he is plainly told that several sittings will, in all probability, be required to clear his bladder. His consent gained, the bladder is emptied and cocainized and an attempt made to seize and crush the stone by the method already described. If the stone cannot be caught, the jaws are opened to the fullest extent the bladder will admit, the aspirator coupled on, the bulb compressed quickly and smartly released several times in succession. Frequently the stone will be found between the jaws on gently closing them. It is crushed and the manœuver repeated as long as it is deemed advisable. If spasm of the bladder, forcing out the fluid contents alongside the instrument, an unusual amount of pain, exhaustion or other untoward symptoms occur, crushing is abandoned, the fragments small enough to pass washed out and further proceedings deferred until irritation due to instrumentation has passed away, usually from four to six days. If on any occasion a stone or a fragment cannot, after reasonable trial, be caught, the patient is sent home until a more favorable time.

I have a Thompson searcher, marked to the same scale that is used on the lithotrite, which is very useful in difficult cases. When introduced into the bladder the angle of its shaft with the axis of the body of the patient gives a clear idea of the area and location of the parts which cannot be reached by the lithotrite. If a stone is felt, the distance from the meatus and the locality are carefully noted, so that search with the lithotrite may be made in the place the stone is known to occupy. Sometimes a searcher will fail to detect a stone when one is known to exist; it is then a waste of time to use the lithotrite, and the patient is told to come again. It has happened to me several times that in a difficult case, one in which the prostate was so large that the handle of the searcher would be depressed far below the plane of the body, that after an ineffectual trial on one day the stone would be readily found on another.

It may happen that during an operation a large fragment seems to vanish utterly. It has been forced deep into the sulcus between the bladder and the intruding mass of the prostate, and it is useless to prolong attempts for its removal. In a few days it will become coated with mucus, slip from its prison, and then may be found and dealt with.

No time limit can be set within which it is wise to desist; the degree of tolerance differs greatly, but the operator should bear in mind that it is better to stop too soon than to risk setting up inflammation by too prolonged manipulation.

The number of sittings will vary with the varying difficulties of the case and the skill and experience of the operator; rarely more than three are needed, and, after the first, cocaine may often be omitted.

During the intervals I am careful to avoid washing out the bladder, being fully convinced that such treatment is not only useless, but fraught with great danger to the patient; if the urine becomes foul irrigation will make it worse, while on the other hand it will speedily clear up when the cause, a fragment, is removed. If the condition and strength of the patient will permit I do such an operation in my office, otherwise I prefer him at home or in the hospital.

In 1886, I had the honor, in a paper before this Society, of presenting to the profession a "new instrument for removing fragments in litholapaxy," for which the following claims are made:

1st. A larger caliber of the catheter, circular in form, in the male blade, consequently admitting a freer passage of fragments.

2nd. Merit as a searcher in cases of stones that evade the usual methods of exploration

3rd. Simplicity of construction and ease with which it can be taken apart to clean, an important point in instruments designed for use in litholapaxy.

4th. Enabling the operator to proceed, after the first crushing and aspiration, uninterruptedly with the operation, diminishing the necessity of the repeated introduction and removal of different instruments, thus lessening the danger of injury to the deep urethra and shortening the time required.

5th. Enabling the operator to avoid working with the beak reversed, thus avoiding the most dangerous region, the fundus of the bladder, the only part where it can be easily grasped by the lithotrite.

Ten years' experience, during which time I have operated upon the fifty-eight stones here submitted for your inspection, with this instrument, have strengthened the claims then put forth. Originally designed for fragments only, I have gradually pushed its use to such a degree that, with the exception of very hard stones, I employ no other. It should be mentioned that many of these cases required several sittings each, so that a far greater number of operations were actually made. In nine cases only was a more powerful instrument required for preliminary crushing, and in several of these I should now use mine alone. Still, there are stones quite beyond its power to crush, and a stronger lithotrite should be at hand when a litholapaxy is undertaken. The instrument of Dr. Forbes leaves nothing to be desired in this connection. With these instruments, skillfully managed, I fully believe it possible to remove any stone that could be gotten by perineal section.

To my original invention I have added several improvements and devised an aspirator or wash-bottle, both made by Geo. Tiemens & Co., 107 Park Row, New York City. These instruments are described and illustrated in "A System of Genito-urinary Diseases, Syphilogy and Dermatology," Vol. 1, page 681 *et seq.*, by Prince A. Morrow, M. D., New York, 1893.

Before beginning an operation it is important to coat the male blade with some unctuous substance to prevent the egress of the fluid from the bladder and ingress of air during aspiration. For this purpose I find Packer's tar soap excellent. The wash-bottle should be boiled in a strong solution of boric acid before and after each operation; this not only cleans it thoroughly, but also preserves the rubber. Care should be taken to screw the glass reservoir in firmly to avoid leakage. It can readily be filled by submerging it in a pan of warm boric acid water. During an operation two aspirators are very convenient, so that while one is being emptied the other is always ready to the hand.

While washing it is sometimes well to diminish or increase the quantity of fluid in the bladder; this can easily be done by letting a little out, or throwing more in, turning the stop-cock, removing and refilling the aspirator before coupling again.

With regard to cocaine anesthesia, I used it for the first time December 6th, 1884, felt my way carefully, gave ether seven times in my next twenty cases, gave it for the last time July 10th, 1889. Since that date I have used cocaine in all operations for stone, or fragments of stone, in which an anesthetic was needed.

On very few occasions there has been slight toxis—never enough to cause me to suspend the operation. In most cases the anesthetic has been all that could be wished. I inject a fresh lot whenever the patient begins to suffer and have, on occasions, kept up the influence for as much as three hours, using for this purpose eight ounces of a 4 per cent solution.

As to results: Of a total number of seventy-eight cases there have been two deaths—autopsy in both, one clearly demonstrating that the operation did not affect the result, the other showing that it might, possibly, have hastened it. Many of the cases were in a most pitiable condition—old, worn with pain, marked degeneration of important organs, kidneys, liver and heart. Still, they have gained a most satisfactory share of relief and I have often been astonished at the very slight amount of distress due to even prolonged manipulations.

In conclusion, permit me to explain that the circular of our worthy President requested those presenting papers at this session to confine themselves to their personal knowledge of the subject selected. In deference to his request I have omitted all reference to the great bulk of the knowledge of litholapaxy and sought to compress into the brief space allotted the small sum of my own experience.

ASEPTOLIN.

By A. L. LENGFELD, M. D.,
Prof. of Materia Medica and Medical Chemistry, University of California,
Medical Department, San Francisco.

COMPOSITION.

Water, H_2O	97.2411	per cent
Phenol, C_6H_5OH	2.7401	"
Pilocarpine-phenyl-hydroxide, $C_{11}H_{16}N_2O_2OH.C_6H_5$	0.0188	"
Total	100.0000	per cent.

As Dr. Edson in his article (*N. Y. Med. Rec.*, February 8th, 1896), recommending aseptolin for the treatment of phthisis pulmonalis, plainly states that he does not desire to have his discovery "classed with that of a proprietary remedy," and, furthermore, that "the new agent can be used as freely as any compound or combination of the pharmacopœia," it is fair to assume that he invites criticism, and is willing to accept suggested improvements.

As most physicians are not chemists, and as Dr. Edson is evidently no exception to this general rule, he may be pardoned for having admitted into his article a so-called chemical report which is full of errors and absurdities, and is either intentionally or accidentally misleading and false. If Dr. Edson were not known as a man of high professional attainments and high standing, we might be led to believe that he had joined the great army of nostrum vendors in their efforts to secure wealth from and through the medical fraternity. As Dr. Edson plainly states "that there is no reason why a competent chemist should not make it," and furthermore that it is not very difficult to make provided one has the apparatus and is sufficiently careful, it is difficult to understand why there should be so much ambiguity in describing the process, the methods and the chemicals used, and why specially designed and extravagantly expensive chemical apparatus (*vide* his letter in *Examiner*, February 28th, 1896) should be necessary.

A careful reading of Chemist Mott's report and Dr. Edson's remarks in the same, and a careful sifting out of all that is equivocal in the formula shows that "aseptolin" is practically nothing but a solution containing approximately 0.02 per cent (0.0188) of pilocarpine-phenyl-hydroxide (commonly called pilocarpine-phenate) in a 275 per cent solution of pure phenol.

Pilocarpine-phenyl-hydroxide is not such a difficult chemical to prepare; the phenates as a class are staple compounds and are easily prepared. The phenates of K–Na–NH_4–Hg, quinine, cocaine and others are known and used in medicine, being obtained either by direct union of the base with phenol, or by double decomposition, and pilocarpine-phenyl-hydroxide can be so prepared without the aid of "apparatus specially imported from Germany." By heating phenol ($C_6 H_5 O H$) with the alkaloid pilocarpine ($C_{11} H_{16} N_2 O_2$) (not $C_6 H_5 N_2 O_2$, as given by Chemist Mott) in the proportions of their combining values—(not in the proportions given by Chemist Mott) at a temperature not exceeding 100° C., or by adding an alcoholic solution of phenol ($C_6 H_5 O H$) to an alcoholic solution of pilocarpine ($C_{11} H_{16} N_2 O_2$) at a temperature not exceeding 100°C, the salt is readily obtained. Dissolving this salt so obtained in a 2.75 per cent solution of pure phenol, gives without the aid of special apparatus, and without any special skill, the now famous aseptolin.

As in one part of Dr. Edson's paper the salt is described as a "colorless crystalline salt," while in the very next column we are told that uncrystallized pilocarpine-phenyl-hydroxide separates out, and as Dr. Edson admits refusing pharmacists a supply of the new salt and has failed to present samples of the same or even a description of the same to any medical, pharmaceutical or chemical society or journal, or even to the daily press, it is fair to assume that neither Chemist Mott nor Dr. Edson have ever isolated the salt, and that neither one knows whether their aseptolin is what they claim, viz., a solution of pilocarpine-phenyl-hydroxide in phenated water, or merely a solution of the alkaloid pilocarpine in the same. So little do they apparently know of the character of that "new compound" which Chemist Mott says, "you, Dr. Edson, have after laborious research and experiment, produced" that even in giving "its composition as deduced by calculation" wrong statements are made. If pilocarpine-phenyl-hydroxide is, as is claimed, a chemical compound, its composition deduced by calculation is:

Pilocarpine....	68.89	and *not*	Pilocarpine.....	53.92
Phenol........	31.11		Phenol.........	46.08
	100.00			100.00

as given by Chemist Mott. Of course, if they merely have a mixture the proportions can be anything they desire, even those given by Chemist Mott.

Before many weeks, however, (and without the aid of Dr. Edson and his chemist,) pilocarpine-phenyl-hydroxide will be an article of commerce as easily obtainable as are the other salts of this alkaloid. And as Dr. Edson admits that "the formula is by no means complicated, and that while the other ingredients are at hand, the salt alone is as yet not procurable"—it necessarily follows that when it is obtainable, any pharmacist will be able to prepare the aseptolin as scientifically and as accurately as it is to-day by the doctor and his experienced chemists, and the many misleading and false statements as well as the complicated methods of Chemist Mott, and the extraordinary expensive special apparatus of Dr. Edson will fade away and only the glamour of successful charlatanry remain.

As much stress is laid upon the necessity of using only the purest phenol, and as a so-called process is given for preparing their "highly purified phenol," a few words about this chemical may not be uninteresting. Phenol, phenyl-hydroxide, or carbolic acid, as it is called, the formula of which is $C_6 H_5 O H$, and *not* $C_6 H_7 O$, as so repeatedly written by Chemist Mott, can be obtained in a state of absolute purity from various manufacturers, prepared either directly by the usual processes from coal tar, or prepared synthetically from benzine ($C_6 H_5 H$), (phenyl hydride), or from aniline oil ($C_6 H_5 N.H_2$), (phenyl amine). C. P. phenol is an article of commerce—free from para-cresol and other impurities, and the process given by Chemist Mott will not purify it from traces of these substances, unless, perhaps, the temperature is very carefully watched and regulated, a point which he very carefully neglects to mention.

"To reject the first 10 per cent so condensed, utilizing the remainder, with the exception of the last 10 per cent which is likewise rejected" is a process identical with and probably copied from the directions given in the U. S. P. for the preparation of distilled water, and while of great importance in the manufacture of this simple pharmacopœial remedy is practically valueless for the purification of phenol.

Chemist Mott says: "Having obtained this 'highly purified phenol' it is diluted with distilled water until the percentage of phenol is reduced to exactly 2.75 per cent. This is introduced into glass stoppered receivers" [retorts or flasks, I suppose, was meant] "which have been thoroughly cleansed with boiling water. In the receiver the right proportion of the alkaloid pilocarpine is put, so that as the phenol distills over and condenses, it immediately combines with the pilocarpine in the production of the fluid. The temperature of the receiver is kept * * * sufficiently high to insure the desired union." Why this crude method should be followed instead of the simpler one of preparing a pilocarpine-phenyl-hydroxide as already described and merely dissolving it in the 2.75 per cent phenol solution is difficult to answer, but probably explains the trouble they had had in preparing "aseptolin" of a uniform composition and of an absolutely colorless physical appearance. It is probable, however, that the expert (?) chemist who suggested this method merely remembered the general rule that alkaloids were less soluble than their salts and were more soluble in hot H_2O than in cold H_2O, and therefore suggested the plan of placing the alkaloid in the receiver, allowing the distillate to come over at a comparatively high temperature so as to permit the phenol to combine with the alkaloid pilocarpine under apparently the most favorable conditions, gradually converting it into a phenate to be immediately dissolved in the excess of phenated water.

In this process, as well as in their various formulæ, Chemist Mott and Dr. Edson have displayed an inexcusable ignorance regarding the properties of the chemicals they are dealing with, and as their reports are full of misstatements and errors—errors which could have been easily avoided or rectified by simple reference to standard authorities, are we not justified in believing that the same gross carelessness governs their work, their results and their product, and that when once the salt is obtainable, more careful, more conscientious, although, perhaps, not as prominent workers, will furnish a product better, more scientifically and more accurately prepared than that "aseptolin" with which they now supply us?

DEATH AFTER AMPUTATION OF A CARCINOMATOUS BREAST.

By W. S. THORNE, M. D., San Francisco.

This is the age which M. Auguste Comte might permit us to designate as the era of surgical "Positivism." All natural phenomena are believed to be *knowable*. *Sepsis* is the explanation of all surgical accidents, and *asepsis* the antidote and the panacea. While our philosophy excludes all things not referable to the invariable laws of coexistence and succession, we at times may well question whether our theory of asepsis covers all of those laws or relations which underlie and are essential to the suppurative process.

It is within the experience of most operators that cases occur which, after every possible precaution has been carried out, take on, nevertheless, the most virulent form of sepsis. The facile and pliant explanation of "faulty technique" is ever at hand to satisfy the disquieted observer, but a hundred subsequent operations conducted under identical conditions and environment are followed by no such disasters.

Reasoning, therefore, by exclusion and guided by observation and experience, we are forced to conclude that it is our philosophy, and not our technique, that is at fault, and that in certain cases there are as yet unexplained biological reasons for the phenomena of suppuration that proceed *uninterruptedly* and in *spite* of any and all aseptic methods. I entertain this belief with a full knowledge of the statement of certain operators that, "with a certain kind of catgut a hundred consecutive operations have been made without seeing a drop of pus." This legend of the marvelous gut must be relegated to the domain of the marvelously credulous, and it is safe to predict that it is an experience that will not often be repeated.

The following example is one which appears to belong to that class of cases of sepsis which follow in spite of a careful and conscientious aseptic technique: Miss M., age 46. Consulted me for an abdominal growth. She has always enjoyed good health; family history good; menstruation regular and normal to within a few months, since which time it has been rather abundant and prolonged. Complains of some abdominal pain after much walking or exercise. Appetite good; sleeps well and is generally comfortable. Examination reveals quite a large growth, smooth and symmetrical, involving the body of the uterus and to the left of the median line, and one somewhat smaller to the right of the median line. The uterus is quite movable. The tumors appear to be subperitoneal. The growth to the right was diagnosticated ten years ago. In the right breast there was found a growth half the size of the adult fist. It was quite firm and the nipple and skin retracted and adherent. The glands of the axillary region were distinctly enlarged. Recently she had felt sharp and disturbing pains in this breast.

Several of my colleagues decided in favor of malignancy of the growth, and its immediate removal was decided upon. After the usual preparations, it was removed at St. Mary's Hospital, Drs. Robinson and Tait kindly assisting. The entire breast was removed, together with portions of the pectoralis major. The enlarged glands of the axillary space were thoroughly enucleated.

She bore the operation well; there was no unusual loss of blood. The operation was done under the usual aseptic precautions. So far as I am aware, there was no break in the aseptic chain surrounding the patient from first to last. Nevertheless, the temperature almost immediately rose to 102, and on the third day it reached 103½, and evidences of suppuration were present. The axillary space was opened, and every possible opportunity for thorough drainage afforded. The patient's strength was supported by food and stimulants and heart tonics, but she died on the seventh day, evidently from virulent infection.

I suspect that such cases are less infrequent than the literature of surgery would lead us to infer.

Pus is not fashionable in surgical society any longer, and fashion cannot be ignored—it is better to ignore pus and the truth. But when we listen to such brave and honest workers as Nicholas Senn, we know that there is at least one great surgeon who knows pus, and who admits that he sees it occasionally. Touching this subject, he says: "I have made it a duty on my part to familiarize myself with the advances made in the technique of aseptic surgery, and have the good fortune to perform my operations in two of the best hospitals in Chicago, and in a fairly well equipped college clinic, and yet I am only too willing to confess that I never finish my day's work without seeing pus. I have a painful recollection of two amputations for carcinoma of the breast on private patients, in both of which every possible precaution was carried out, and yet, to my utmost disappointment, both of them died of the most virulent form of sepsis I ever encountered."

RUPTURE OF THE UTERUS—AN UNUSUAL CASE.

By DR. SHERWOOD-DUNN, Los Angeles, Cal.

(Read before the Los Angeles County Medical Association, April 17th, 1896.)

Shortly before my departure from Paris, a woman 38 years of age presented herself at the St. Louis Hospital with the following history. She suffered considerable pain at the moment of her menstrual period, with an unusual and unaccountably abundant flow of blood. She made no mention of either chills or fever; no constitutional disturbance of any kind, no local pain outside of the menstrual period, and no peritonitis. Examination revealed a large uterus, mobile, with the os uteri rather open. Abdominal palpation disclosed a tumor on the right of the uterus which might be attached to either the uterus or the ovary. Combined internal and external palpation did not result in locating the tumor more precisely, and the diagnosis lay between a uterine fibroid and a cyst of the ovary.

I saw the patient first when she appeared in the operating room of Professor Richelot, when the above report was read. On opening the abdominal cavity, M. Richelot found a soft tumor intimately adherent to the peritoneum which he first thought to be a neoplasm of the ovary, and then, by reason of its soft, mushy consistency, a possible pio salpinx, or caseous, or dermoid cyst. On carefully separating the adhesions and following it downward, it was found to be attached to the uterus. The professor now began to think that it might be a degenerated fibrome, but on circumscribing the pedicule he discovered that it was not attached to, but really protruded from, a ruptured opening into the uterine cavity about the size of a silver five-franc piece. He enlarged the opening by an incision, and carefully detached and removed the mass; and not until then was it found to be a placenta weighing from 1 to 1½ pounds. The ruptured uterine opening was stitched to the abdominal opening, a large rubber drain introduced into the uterine cavity by this opening and the wound closed around it.

The patient passed a comfortable night with but little chloroformic vomiting, but the following day the temperature became elevated and she died on the evening of the second day after the operation.

By permission of Professor Richelot I assisted at the autopsy which disclosed the borders of the abdomino-uterine operation well approximated and the wound in good condition. The uterus had diminished in size since the operation, but was still large—about the size of two fists. The peritoneum and serous of the intestines exhibited a tendency to acute peritonitis. The heart and lungs were normal; the liver showed fatty points from the septicæmic influence and the spleen and kidneys were congested. It is probable that the placenta, when expelled through the ruptured uterus, came in immediate contact with the peritoneum, and a protective adhesive membrane was thrown out which protected the neighboring organs from contamination. When this protection was removed, both from the peritoneal surface and from the uterine cavity, the septic material gave rise to the blood-poisoning to which the patient succumbed.

This certainly was a rare and unusually interesting case, and I would call attention two points in it: 1st. That despite the care usually practiced in hospital histories, nothing was learned that called attention to the true condition, and 2nd. The freedom with which such surgeons as Professor Richelot pass from one diagnosis to another before a large clinical class in a case which imperatively demands surgical intervention, attaching but little importance to an exact diagnosis in a case where the kind and character of the surgical procedure are plainly indicated.

If we all were to take a lesson in frankness from this great man we would gain rather than lose in the respect of our fellows.

AN INTERRUPTED STITCH BY A CONTINUOUS METHOD.

By CAMPBELL FORD, M. D., San Francisco.

The perfect suturing of a wound contemplates the coaptation and retention of the divided structures to their normal relations. A suture, in addition to fulfilling this requirement, should cause no disturbance, *per se*, be easily and rapidly inserted, and permit of being removed from any point without disturbing any other part of the wound.

The Cerenzy, Lembert, cobbler's, button, mattress, subcutaneous, pin, rubber, and the quilled are special sutures, fulfilling certain special requirements. Practically, the "glover's," or continuous, and the interrupted are the ones used.

The "glover's" has the advantages of being rapidly and easily inserted, requiring only a small amount of thread, with the disadvantages that the action of the force is not at right angles to the cut surface as it should be, but is lengthwise, causing a tendency to pull and pucker the edges. The surfaces are gathered in a roll with the suture wrapped around it, producing interference with the circulation of blood and lymph, at the line of union, where it should be free. If the suture cuts or gives way at any point, the entire wound opens, nor can it be removed at any point without the same result.

From the clinical results, the interrupted suture is the most popular one with nearly every surgeon of to-day, due to the fact that it fulfills more nearly the scientific requirements. Force is exerted at right angles to the wound, operating at the best advantage, less force is required, therefore producing less disturbance. Each stitch may be adjusted or removed separately and the circulation between the stitches is not impaired.

The disadvantages are that cut ends are points of irritation when it is used as a buried suture. This has caused it to be rejected by some in operations for the radical cure of hernia, and in fact, in all operations where a buried suture is required. If the ends are cut short they will untie, and if cut long, increase irritation. Far more material is lost than is used. This becomes an item of importance with the expensive prepared materials. The chief objection is the time lost in measuring, cutting, gathering, tying and the subsequent clipping of the ends of the suture, together with the threading and changing of needles.

To overcome these objections I have devised and successfully used the following method: Use a long thread. Pass the needle through the divided structures and, without cutting, tie a reef-knot. For the second stitch pass the needle from right to left, thrusting the point well through and, just before grasping it, to draw it on through, pick up the thread near the former knot and turn from right to left around the point of the needle. Once around for a reef or square and twice around for a surgeon's knot. Adjust the tension. This forms the first loop of a reef-knot or, if two turns have been made, a surgeon's knot. Pass the needle from *left* to right under the strand between the two knots, drawing it out through the loop formed. This completes the knot. [See Figures 1 and 2.]

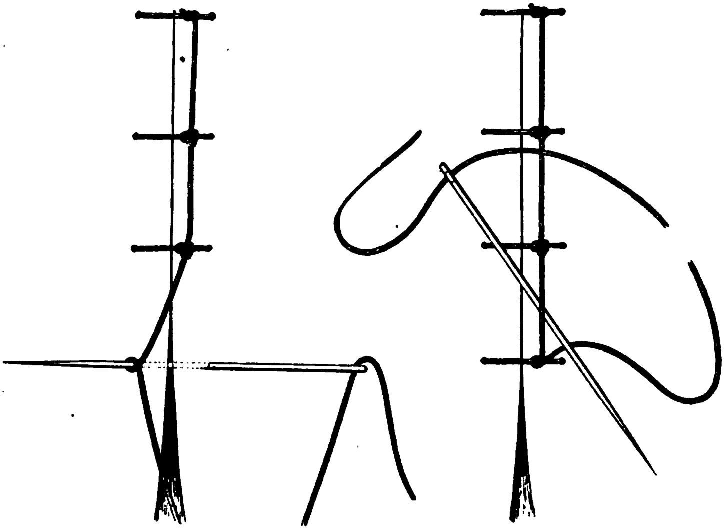

Fig. No. 1. Showing the first turn. Fig. No. 2. Showing the second turn.

The first step may be slightly modified by passing the needle around the thread instead of the thread around the needle.

Here all the advantages of both the continuous and the interrupted sutures are combined, with none of the disadvantages of either. In addition, by using the thread as a guy line, the last stitch may be readily located. The cut edges cannot retract and be lost as a peritoneum, fascia, or muscle may.

Careful computation shows that it can be introduced in one-sixth of the time required for the interrupted suture, and with little practice may be introduced almost as fast as the glover's.

The first loop will not slip, no material is wasted, no assistance is necessary, no tangled ends, no changing and threading of needles, no tension lengthwise, no cut ends to irritate, the knot cannot untie, each stitch is adjusted, tied and may be removed separately; circulation between the stitches is not interfered with, all the force exerted is just sufficient to close the wound as it operates at the best advantage, *i. e.*, at right angles to the cut surfaces.

Wherever suturing is required and especially for uniting the different planes in closing the abdomen, and where immediate and perfect union is required, as in Stinson's, Bassini's, Halstead's and other æsthetic operations for radical cure of hernia, this method seems to me to be particularly adapted to supplant the crude and dangerous cobbler stitch recommended by Marcy, of Boston, the wire of Halstead, the inefficient glover's, the slowly introduced interrupted with the points of irritation, or, in fact, any other stitch or method yet devised.

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OPHTHALMIC APHORISMS.

By H. I. JONES, M. D., San Francisco.

(Read before the California State Medical Society, Los Angeles, April, 1896.)

It is my desire to draw your attention to a variety of affections of the eye and to formulate some general rules for the guidance of the medical attendant, who is so frequently responsible for these cases in their early stages. What shall they be? Well, age is an important consideration. Young persons are not as a rule subject to glaucoma, although they not unfrequently suffer from iritis, in the latter case adhesion might have been, in many cases, prevented if atropine were used. It would be well in view of these deplorable conditions to lay down a law that atropine should be employed as a matter of routine practice in cases of inflammatory affection of the eyeball, on the ground that it could do no harm, and might prevent adhesion. It would simplify practice very much if such a rule could be adopted, but in point of fact, atropine is as injurious in some cases as it is indispensable in others; as I have said, I have seen serious damage done by neglect of mydriatics, yet their employment I have seen fraught with danger and followed by disastrous consequences, for instance in glaucoma. I can recall many instances, when the diagnosis between iritis and glaucoma had not been verified and when atropine had ruined the latter case.

Specialists are not likely to make mistakes, but such cases do not come under the notice of specialists in their early stages. General practitioners, unless exceptionally well informed on eye disease, are beset by danger on the one hand, blindness from adhesions if atropine is neglected, on the other glaucoma if it is employed in unsuitable cases. The employment of atropine with patients not suffering from glaucoma, under forty, is comparatively safe. Cases of inflammatory glaucoma are mistaken for iritis and positively ruined by the instillation of atropine used with the very best intention. Brilliant and gratifying, however, as undoubtedly are the results of our most frequent ophthalmic operations, they are after all, but as dust in the balance compared to the vast amount of human misery, which is alleviated, and the sum total of blindness which is prevented by the judicious treatment of the most common maladies, to which the eye is affected, and which invariably in the early and most curable stages come under the notice of the general practitioner.

I would call your attention to that very prevalent complaint, "weak eyes." We as physicians in our endeavor for the well being of others are apt to disregard our own demands, and totally neglect ourselves, even when there is cognizance of some defect, or want, in our system, and this is nowhere more vividly shown than in the organ of vision. It would take too long to enter into the explanation of accommodation, and convergence. How many of us endeavor to read by insufficient illumination, either natural or artificial, causing an unconscious approach of the object to the eye, in the compensation of enlargement, for indistinction, thus producing a strain upon the ciliary and extra ocular muscles, in their effort to maintain proper accommodation and convergence. This undue muscular effort means fatigue and yet we neglect rest. I advise you to give your eyes proper light, plenty of it. See how an overworked physician tries to steal a few disconnected phrases from a current journal as his carriage jolts along. What is he doing? Exercising his ocular muscles in a variety of anatomical gymnastics, relaxing and contracting them in exact but unknown proportion, to keep the ever jumping word fixed upon his macula lutea, and then wonders with a possible sage conclusion of general relaxation, last night's work—why his eyes feel so strained. Your time may be valuable, but the knowledge you acquire during traveling, will barely compensate for the consequent eye strain.

My experience in hospital and private practice has taught me that all general practitioners of medicine are not equally well informed upon disease of the eye, and indeed are probably less at home in the special study of this organ than that of any other except the ear. This delicate organ is constantly exposed to various irritants, to traumatism, to functional congestion, especially of the choroid, a vascular membrane lining its interior upon which the whole organ depends for its nourishment. Anatomical peculiarities demand peculiar methods of treatment. In an inflammation of the hand or elsewhere, you would not go far wrong by employing counter-irritants, followed by hot fomentation, in the one instance, and poultice in the second, but you would be in error were you to apply these principles of treatment to an analogous condition in the eye; indeed, you may put it down as an aphorism, never to use poultice, at least in the ordinary acceptance of the term, in your treatment of diseases of the eye. Again in many inflammatory conditions, the acetate of lead is a useful sedative and astringent application. We have all been taught that lead forms with albumen an insoluble albuminate, so that if you apply this astringent to an inflamed cornea, or to one whose epithelium is eroded, by an ulcer, a deposit of albuminate of lead will be left upon the cornea, and the last condition of that eye will be worse than the first. It is by no means easy to differentiate between the various inflammatory diseases of the eye, and to this end I wish to call your attention to the following cases, which will illustrate the importance of correct diagnosis.

A man comes to your office for the first time, his eyes are red, the vascular system of both bulbar and palpebral conjunctiva are injected. There is but slight gluing of the lids by discharge in the morning according to his statement, and he complains of some pain and dread of light. He has applied every known domestic remedy. We now come to the question of diagnosis. This condition is different from an ordinary catarrh by the presence of pain and photophobia, which two symptoms are usually absent in the former trouble. In any conjunctival disease pressure upon the eyeball, through the lids, will immediately expel the blood, from the injected and dilated vessels, but not so in this case that I refer to, for here, the anterior perforating and episcleral vessels are distended with blood. Further, this case will have the acuity of vision markedly diminished. This is a case of serious iritis. By instilling a few drops of mydriotics, the pupil would be seen to dilate unequaly and sluggishly. No distinct view of the eye ground can be had. This is a disease of the whole uveal tract. I have dwelt here at length to show the points of difference between this affection and an ordinary inflammation of the conjunctiva. In the one case the application of any simple astringent would effect a cure, in the other it would be worse than useless, while inability to recognize the condition or ignorance of the proper therapeutic measures to be used in its treatment would be the means of marring such a patient's sight for life. Your treatment in such cases should be frequent instillations of sol. atropine (3 gr. to 1 oz.) in order to keep the pupil widely dilated, and if possible prevent the attachment between the iris and capsule of the lens. Internally give the iodide of potassium and bichloride of mercury.

Another case will come before you which will illustrate a widely different condition. The eyes are closed spasmodically tight by the swollen eyelids, and scalding tears run down over the cheek, because the swollen nose cannot provide for the overflow, and there is great dread of light anemic skin and a typical strumous face. This represents a case of strumous ophthalmia and by instilling a few drops of cocaine under the lid you will observe the cause of excessive lachrymation and photophobia, to wit, an ulcer on the cornea. This disease is a local manifestation of a constitutional discrasia, in which local treatment, with atropine, cocaine and boric acid wash, and later yellow oxide of mercury ointment is indicated. The progress of the affection will not be stayed until the general system is brought under the alterative, and I may say nutritive influence of the syrup of the iodide of iron and cod liver oil, and improved hygienic surroundings.

You will also have coming to your office young people complaining of weak or irritable eyes, they cannot use that organ, without pain or discomfort, but in which there is no obvious sign of disease or failure of vision. The subject of weak or irritable eyes is one of considerable latitude, and is divided into two classes:—

1st. Those arising from causes immediately connected with the eye itself, or with its appendages.

2nd. Those arising from sympathy with other parts of the body.

The first comprise a narrow domain and belong to the oculist.

The second include a far wider range and belong entirely to the general practitioner. As there is, however, no hard and fast lines separating the function of these two laborers in the medical estate, it is possible that in considering the cultivation of "fresh fields and pastures new" they may often be of mutual assistance to one another. It is the fashion of the day to lay too much stress upon local conditions as causes of weak eyes, and especially to attribute too great an influence to trifling anomalies of refraction. In consequence of this an epidemic of spectacles has ravaged the community. No sooner is one person afflicted than the disease spreads through the whole family, and pretty girls in their teens are transformed into strong-minded looking women, behind an armor of glittering glasses. It is no uncommon thing to find a patient going from one oculist to another, getting a prescription for a new pair of spectacles from each and always without relief. Much of this condition of affairs is no doubt due to a mental myopia, on the part of the practitioner, and results either from an exclusive devotion to a specialty at too early a stage of the professional career, or from the attention being narrowly rivetted to the organ under discussion, to the neglect of the rest of the system. The practice of a specialty should be an attribute of the experience not of the beginning of real study. The eye is not a separate entity, which can be detached from the body and live, but an inseparable part of the whole individual, and if we have a sick eye to treat we want to know not only what is the matter with it, but everything bearing upon the health of the person to whom it belongs.

Those arising from sympathy with other parts of the body are of two kinds. First, those which are manifested by a partial or complete paralysis of the nerve of accommodation, and the second by paresis of the vaso-motor nerve of the interior of the eye.

In the first variety, those filaments of the third nerve which control the mechanism of accommodation are more or less completely paralyzed. The eyes become readily fatigued when used in reading, the letters run together and are illegible and a continuous effort to use the eyes brings on a series of symptoms of asthenopia. When you examine the eye closely it will be found that the pupil is somewhat dilated, that it does not contract under effort at near vision, and in some cases not under the influence of light. The iris is tremulous during quick movements of the eye. This condition you will find sometimes to be due to caries of the teeth in children and in young girls from 10 to 20, no doubt owing to the greater excitability of the nervous system in the sex. The anatomical connection may be traced through the ganglionic filaments of the first branch of the fifth nerve, to the lenticular ganglion which is in connection with the third nerve by its short root. The careful attention of a dentist usually ensures a cure. Acute swelling of the cervical glands sometimes produces temporarily the same condition, probably through the pressure on the auriculo-temporal branches of the fifth nerve and thence by reflex action, through the short root above described. Disease of the ear not unfrequently produces the same effect, especially in those cases where there is loss of the drum head, with constant muco-purulent discharge.

In the second variety is a vaso-motor paresis affecting especially the retinal vessels, and perhaps those of the inner coats of the eye. The symptoms are again those of asthenopia. The aching sensations are apt to be more constant and causeless and less relieved by rest than in error of refraction. Such cases cannot fixedly for any length of time look at any object, whether near or remote, without exciting severe pain in and about the eye. The ophthalmoscope will disclose a turgid condition of the retinal vessels. You will notice how rapidly the ocular conjunctiva becomes flushed upon the slightest exertion of the organ of vision. The vaso-motor paresis seems to be reflex and mostly dependent upon the disorder of the genital organs. The third root of the lenticular ganglion is a slender filament derived from the cavernous plexus of the sympathetic, and one of the branches of this ganglion is a filament which penetrates along with the central artery of the retina to supply the wall of the retinal vessels. The path, therefore, from the pelvic plexus of the sympathetic is an almost straight road, and disturbance in the circulation of the pelvic organs produces a wave of vessel dilation which travels over the path and produces a turgid and relaxed condition in the retinal and other ocular vessels. Much of the pain which often accompanies asthenopia from anomalies of refraction no doubt arises from such condition. The iridation which particularly affects the eye in this manner, is that which is transmitted from the uterus in women, and from the prostate gland in man. I have seen several boys below puberty with defective vision due to phymosis which, after circumcision, the refraction was entirely relieved. One thing I have noticed in relation to the diagnosis of the different varieties of weak eyes, when the irritability is dependent upon anomalies of refraction, or presbyopia, the annoyance subsides when visual organ is placed in a state of repose; when dependent upon inflammatory conditions of the eye or its appendages, photophobia is a marked symptom and rest does not entirely relieve. In reflex paralysis of the accommodation the partial dilatation of the pupil and its refusal to contract during near vision or under the influence of light is a pathognomonic. Very often I have coming to my office ladies suffering from this vaso-motor paresis due to the disturbances of the genital organs, pain in the eye is more or less constant. The appearance of one or or two enlarged veins meandering about in the ocular conjunctiva gives a clue to the real condition. I advise rest, the use of colored glasses, bathe the eyeballs with hot boracic water and to consult a gynecologist.

In amblyopia pure and simple there is no pain, only failure of acuity of vision.

In conclusion, I would say that the three chief therapeutic agents in the treatment of iritis are: atropine to relieve pain and prevent adhesion between lens and iris or cornea: iodide of potassium internally as an absorbent and resolvent, with cantharides collodion applied to the forehead as a counter-irritant.

In case of corneal ulceration when perforation is apparently unavoidable, paracentesis should be performed without hesitation because it can do no harm and may save the eye from distinction. The puncture should be made in the deepest portion of the ulcer and the knife withdrawn slowly so as to prevent a sudden evacuation of the aqueous humor. If the ulcer be near the periphery keep the pupil contracted, if near the center keep it dilated.

Remember in the treatment of purulent conjunctivitis from whatever cause, the chief point is to keep the eye perfectly clean, never allow the secretion to accumulate beneath the lids. To accomplish this end the eye must be cleaned with some of the many antiseptic solutions. I prefer a weak solution of bichloride of mercury, 1 to 20,000 as a spray. The atomizer should be held close to the eye in order that the spray may be blown with sufficient force to remove the secretion quickly and thoroughly. In the event of chemosis so great as to render it impossible to work the lids or open the eyes the conjunctiva should be snipped in several places to allow the affected serum to escape. If this should fail, tarsorraphy should be performed.

Sections.

MEDICINE.

In charge of SAM'L O. L. POTTER, M. D., M. R. C. P. L.

Bromine and Iodine in Phthisis.—Among the recent so-called "cures" for consumption, a *Bromine-Iodine Compound* is extensively advertised in the eastern medical press. This is said to be a chemical combination of Bromine, Iodine, Thymol and Phosphorus, so combined as to remove the irritating properties, yet leaving the medicinal properties intact. It is administered by hypodermic injection, and is claimed to exercise a stimulating effect upon the whole glandular system, and at the same time to be decidedly tonic and alterative. One report mentions 50 cases treated with this remedy, and shows 90 per cent. cured in the first stage, 43 per cent. in the second stage, and 15 per cent. permanently improved in the third stage Another adds 12 cases with "equally good results."

Prevention of Tuberculosis by Feeding.—This is the title of an article by Dr. Ephraim Cutter of New York, read at the Baltimore meeting of the American Medical Association. In a sub-heading the author states that "*Proper Feeding Cures Tuberculosis*, or, rather, feed properly, and other things being equal nature cures tuberculosis." Dr. Cutter maintains that tuberculosis can be prevented by avoiding all foods that ferment with the common alcohol and vinegar plants. Such are all vinegars and vinegar liquids—starches and sugars in excess—all composite foods (made up of many articles) sweetened with sugar, glucose, maltose, levulose, frugulose; in fact any animal, vegetable, or mineral foods that ferment into sulphydric acid are admissible, but must be used so that they will not ferment, else nerve palsies will occur. The judicious use of hot water prevents these paralyses by maintaining a downward peristalsis. Celery, lemons, horseradish, butter, pepper, and salt may be used as relishes. Hot water, clear tea, coffee, and cocoa serve as drinks. Avoid corn-meal preparations, beans, soups, sweets, pies, cakes, pickles, sauce, preserves, fruits, vegetables, greens, pancakes, fritters, crullers, griddle cakes, salads, and mush. Vinegar should be carefully avoided. This list is for patients, not healthy people; still it would be well to remember it.

His general rule for feeding to prevent tuberculosis in healthy people is, that the food should be, by bulk, two-thirds animal to one third food from the vegetable kingdom. Liquids at will, save sugars in excess.—(*Jour. of the Amer. Med. Ass'n.*)

Hæmaturia as a Symptom of Renal Tuberculosis.—Dr. Trantenroth has reported an interesting case of a young woman, 25 years of age, in whom a hæmaturia which endangered life was the first symptom of a renal tuberculosis. The disease began suddenly with violent pain over the right kidney, accompanied by weakness and intense headache. Micturition was painful and the urine bloody for two days. After three days of normal urine the pain returned in the same region and hæmaturia reappeared. The urine resembled pure blood. The weakness increased and was accompanied by vertigo and even syncope. There was, however, no edema or disturbance of sight. The palpitations which occurred during the first days soon disappeared. On account of the duration of the hemorrhage and the serious general condition, the patient entered the hospital, where it was found that the urine contained much blood, but there was neither tumor nor gravel. The bladder seemed healthy, and the right kidney was not painful upon exploration or increased in size. Nevertheless, by reason of the pain in the beginning, the hæmaturia was attributed to a tumor of the right kidney, and ergot and hydrastinine were administered. The hemorrhage continued, however, and the anemia increased. It was therefore decided, fifteen days after the beginning of the trouble, to adopt surgical treatment, and the patient was transferred to the service of the writer. Trantenroth ascertained that urine withdrawn by the sound absolutely resembled pure blood; red and white corpuscles were present in the same proportion as in the blood. The bacillus tuberculosis was detected in examination of the sediment. Also, the author detected dullness in the lung and prolonged bronchial expiration in the right infra-spinous regions. Laparotomy was performed. What attracted attention during the operation was the mobility of the right kidney, which could be drawn in front of the abdominal wall and examined. The pelvis of the organ was slightly dilated and filled with bluish red material, and soft, cylindrical bodies. When the pelvis was excised blood escaped and clots were removed. Exploration by the sound demonstrated the absence of calculi. In incising the pelvis as far as the papillæ, there was found at the summit of one of these a reddish gray nucleus the size of a pea and seeming to be a neoplasm. On this account nephrectomy was practiced. The remaining steps of the operation were simple. The first urine was still bloody, but soon became free from hemorrhage. It, however, contained pus globules. The general condition was, nevertheless, very notably improved, and the patient gained weight. Six weeks after operation she asked to be discharged. At this time the urine was very purulent and contained many bacilli. Upon examination of the removed kidney, after its decortication, miliary nodules were found upon the surface. Upon incision clots were perceived in the calices, and three grayish nuclei in the medullary substance. One of the foci, as was observed in the course of the operation, was firm, with beginning caseation in the centre. Cultures made from the surface of this nucleus yielded numerous bacilli.

Several points in this foregoing history merit attention: (1) Hæmaturia may be the only symptom of tuberculosis. It is explained in this case by the situation of the tubercles in the papillae, adjacent to large vascular trunks. (2) The early indication for operative interference; fifteen days after the beginning of the manifestations operation was inevitable. (3) The indication was decided, for the hemorrhage placed the life of the patient in danger. Although it would be very difficult to estimate how long life would have been sustained, it may be affirmed, in view of the anæmia and debility before operation, that a hesitation to operate would have been fatal. From these two points of view, the early date and the urgent necessity of operation, the case of the author is, perhaps, unique.—(*La Medecine Moderne.*)

Tuberculosis of Parrots.—Straus, whose extensive researches upon tuberculosis in various animals as well as in man is well known, says that tuberculosis in the parrot presents several features which differ from those peculiar to the classical form of avian tuberculous disease. Tuberculosis is not uncommon in parrots. Froehner found that in 154 parrots treated at the veterinary school in Berlin 56 were proven by demonstration of the bacilli to have tuberculosis. Cadiot found eleven out of thirty-five parrots to have tuberculous lesions. Cadiot made inoculations with the tuberculous material from the parrot into guinea pigs and there followed an eruption of general tuberculosis. In the parrot the disease is characterized by the frequent involvement of the skin and of the mucous orifices, whereas in fowls tuberculosis prefers the digestive tract and its adnexa. The tuberculous lesions of the parrot consist of grayish or brownish tumors, often having a horny appearance. The swellings may be multiple. The skin of the head is the seat of predilection. The internal organs are involved only occasionally, the lungs oftener than the liver and the intestines. The parrot, living in a state of captivity, not coming in contact with other birds, but being in close contact with human beings, is most likely infected with the products of human tuberculosis. It would consequently be of interest to determine the exact nature of tuberculosis in parrots, whether it is simply the result of transplantation of human tuberculosis or presents the character of ordinary avian tuberculous disease. Straus examined two cases of parrot tuberculosis with this object in view and found that the disease presented exactly the same features as tuberculosis in man. This was shown by the result of inoculation into guinea pigs in which it produced the lesions that follow the introduction of human tuberculous products and those peculiar to the avian. Inoculations of the lesions in parrots into the peritoneal cavity of fowls were without effect. It consequently seems clear that it is through its contact with man that the parrot becomes tuberculous. When passed through a bird like the parrot human tuberculosis is not changed into avian but retains its fundamental characteristics.—(*Journal of the American Med. Assoc'n.*)

Pulsating Pleurisy.—Dr. R. Lepine has observed a case of pulsating pleurisy which differed in certain respects from the classical description of this disease. The patient was a man, aged 28 years, who presented the symptoms of inflammation of the entire left pleura. The effusion was enormous, displacing the costal wall, the diaphragm, and the mediastinum. The heart was pushed entirely to the right side. Upon palpation, there was recognized, behind the left false ribs, at a considerable distance from the median line, well marked, energetic pulsations, perfectly isochronous with the beats of the heart, so much so that if the position of the heart had not been previously ascertained upon the right side, it would have been thought that the cardiac impulse was perceived by the fingers. Nevertheless, the sensation was not that of a firm shock, such as is given by the apex of the heart, but of something neither solid nor resistant. It was evidently the pleuritic fluid perceived beyond the diaphragm, behind the left false ribs. There exists, therefore, a particular variety of pulsating pleurisy in which the beats are not visible, but in which careful search is necessary in order to recognize the pulsations.—(*La Medicine Moderne.*)

Mental Symptoms in Bodily Disease.—According to Dr. Reynolds, mental symptoms occurring in bodily disease may be divided into those slight mental changes in the feelings and emotions not amounting to actual certifiable insanity, and actual insanity. The slight mental states may be roughly subdivided into pleasurable feelings, depressed feelings, conditions of mental dullness, abnormal irritability of temper, and feelings of terror. He concludes that: (1) It is a comparatively rare occurrence for actual insanity to develop during the course of bodily disease. (2) In general hospitals, mental disease most commonly occurs after fevers, poisons, injuries, operations, and heart disease (in about this order of frequency). (3) In the early stages of fevers, and after injuries and operations, mania is the commonest form of insanity; but in other conditions depression is more common; but the commonest form is an insanity with marked delusions of persecution (often associated with hallucinations of hearing), such as one sees in phthisis and heart disease, and after typhoid fever. (4) There is no form of insanity connected with special bodily disease, so that it is impossible to diagnose the bodily disease from the mental symptoms present (except the peculiar state of alcoholic paralysis). (5) Insanity occurs with unusual frequency in bodily disease associated with peripheral neuritis, as poisoning by alcohol, carbon bisulphide, and lead; pellagra, typhoid, typhus, scarlet, and rheumatic fevers, influenza, pneumonia, phthisis, syphilis, septicæmia, rheumatism, gout, and diabetes. Is it possible that in these conditions the factor which causes the changes in the peripheral nerves causes also similar changes in the multitudinous internuncial fibres in the brain, and so produces disturbances in the normal cerebral reactions which go to make up a healthy mind? (6) When the cause is not continuous—such as the poisons, the fevers, and the traumata—the mental symptoms in the great majority of cases disappear; in heart disease and phthisis, they may disappear and reappear from time to time, but in some cases, such as insanity connected with gouty kidney, they only disappear with death.—(*Brit. Med. Jour.*)

GENERAL DEMOGRAPHY AND CLIMATOLOGY.

Under the charge of P. C. REMONDINO, M. D.,
Member of the American Public Health Association, of the American Medical Association, of the State Board of Health of California, and of the Board of Health of the City of San Diego.

Trials of Physical Endurance.—A Marseillais named Durand has been astonishing the Parisian world through his feats of physical endurance in sustaining long passive strains on his body. His first feat consisted of standing for a great number of consecutive hours, with a musket, in the attitude of a sentinel on duty. He carried out the promised number of hours, but at the end he was such a wreck that the physician in attendance doubted the possibility of his recovery from the effects of the trial. His legs were swollen, and his hands were as those of death at the end of the trial.

His latest feat has been to remain suspended by the neck for a period of thirteen days. The suspension took place in the *Concert Duclerc*, a pulley and hook having been affixed to the ceiling of the hall, to which he was swung by a rope placed about his neck. Ninety-two hours after his suspension, he exhibited signs of great fatigue, his hands being swollen and livid. The suspension is practiced in such a manner as to avoid pressure upon the windpipe or the blood vessels, the noosed end of the rope exerting the strain on the head on the principle of a surgical suspensory apparatus. He hangs limp, with his head leaning forward on his chest, his arms hanging motionless by his side. His eyes are partly closed, and now and then he turns his right leg about the left. When the orchestra plays, it imparts some convulsive movement to the body, especially to the fingers, which then open and close convulsively. By the advice of the physician in attendance, under whose direction or watchfulness the trial is being made, he now takes a fifteen minute rest out of the twenty-four hours. This rest is not, however, a rest in the full acceptance of the term, as it merely consists in the placing of a step-ladder in such a position as will enable him, for that time, to lean his weight against it. During these periods of relief, he is frictioned about the temples and hands with a solution of salt, alcohol, and aqua ammonia, largely diluted in water, and given a little ether by inhalation. He partakes of no food, and at intervals only of a little bordeaux.

The thirteen days of suspension were finally accomplished, and, at midnight of the fifteenth of May, the experimenter was let down from his long test of extension and of endurance. After a brief period of rest on a chair, and a draught of his tonic, Durand walked out of the room to his quarters. To a reporter he said that he had had no fear as to his ability to endure the test, having experimented for eight successive days in his rooms without much inconvenience. During the thirteen days' trial, he expressed himself as having suffered from pains in the stomach for the first few days, after that he was only inconvenienced by the heat in the higher parts of the hall, by thirst, as well as by the vibrations caused by the music. He claims to have enjoyed his moments of sleep during the suspension, dreaming ordinarily as if in bed, only that he found himself more subject to nightmare.

The experiment of Durand is somewhat interesting in a surgical sense as bearing upon the possible endurance that one may sustain without interruption, long protracted suspension or forced extension, in case of actual need. In Joseph Hartshorne's American edition of "Farrell's Translation of Richerand's Lectures of Boyer" on diseases of the bone, we find in Hartshorne's notes the relation of the case of Peter Calberry of Philadelphia, admitted to the surgical ward of the Pennsylvania Hospital on November 15th, 1804, for injuries received in a fall of ten feet, striking upon his head and back, and resulting in fractures of the cervical vertebræ. The case was treated by Dr. Physic, by means of an apparatus that extended the head from the body by bearing on the chin and occiput as done by the Sagres extension chin and head band, whilst counter extension was exercised by traction from the ankles. The "note" is accompanied by a full page engraving or wood cut, having the patient stretched out on his bed, which fully describes the apparatus. Although the patient died on the morning of 17th, or some forty-eight hours after the injury, the fact that upon the application of the extension, the patient, in a measure, recovered the use of his arms, afforded Dr. Physic grounds for the belief that in fractures of the cervical vertebræ, permanent extension of the neck may sometimes retain the fragments in their natural position, and prevent them from pressing upon the spinal marrow.

The immediate cause of death in Dr. Physic's case was the inability of the patient to expel the accumulated mucus on the trachea, owing to the paralysis of the abdominal muscles. It was found that the spinous process of the fifth, and the body of the sixth cervical vertebræ were fractured and pressed upon the spinal marrow or cord. The many cases in which recovery may be possible, even after serious wounding and fracturing of the vertebræ, make Durand's experiment in connection with Dr. Physic's case an interesting surgical pointer.

The trial is simply undergone as a matter of occupation, and for employment as a money-earning scheme; his former exhibitions consist of the stationary sentinel duty on a pedestal, when he stood still like old Saint Simon Stylites, of pillar fame, and of being tied and suspended to a cross after the old Roman manner. How long his system will stand these prolonged strains without serious injury to lungs or heart, or to the vascular system of the extremities; or how long he can proceed with these forms of trials without seriously risking the development of some morbid, nervous or blood changes, may be matters of conjecture, but it is very safe to say that some serious and irremediable difficulty may assert itself from one moment to another, and that at best, the future will find in the experimenter a broken down man. An American named Scott attempted a like feat in 1840, but the unfortunate slipping of the noose so as to produce strangulation ended the unfortunate experimenter in about fifteen minutes, to the no small surprise and horror of his admiring spectators who were not looking for his death.

Health or life, too often seem of little value by their possessors when brought into the scale of competing for wealth, either large or small. Many occupations seem to us but a long drawn out form of committing suicide, and on the whole, tend to make of us Mussulmen fatalists, as all occupations have their average mortality and risks, and in the end, it is a choice between a long life of toil and of health, with an assured poverty for an accompaniment,—something like the honest farmers' life, that most of us will assiduously shun even if it is healthy and long lived—or taking chances with a short life, or a wrecked existence, but with the satisfaction of possibly clutching tight on some money bags as we sink into the grave. To be a stoical philosopher is to place one's self in a position where one may be classed as being spiritless and unfit to exist in our progressive era; on the other hand, of what avail is wealth if one has to court becoming neurasthenic, impotent, dyspeptic, diabetic, or albuminuric, in his restless scamperings after that wealth that he can in no sense enjoy after he has secured it.

Whilst we do not believe in suicide as an everyday outlet from that optimistic world, and whilst we would not advise suicide in general, there are undoubted cases in our opinion where suicide is a very proper thing. With that view of the case, and in full consideration of the known pathological conditions that the Marseillaise Durand is courting, we would advise him to hang himself in dead earnest, and thus shorten his agony, as he will in all probability wish that he had done so before he sees the end of the physical results of his physical endurance trials. An old French soldier of the line, condemned to be hung for a theft of some ten cents, was being taken to task by his colonel for having sold his life so cheaply. The soldier in answer simply replied that as long as he ran the daily risk of being shot and killed in battle for only two cents pay per day, he could not see any great enormity or inconsistency in running the risk of being hung for attempting to make five times as much in one day. It is just probable that Durand takes the same view of the case, and that between his Simon Stylite's performances, his crucifixions, and his suspensions, that he enjoys his full capacity for life according to his tastes and ideas.

A Case of Suspended Animation.—A case lately reported in the Greek press as having occurred in the island of Lesbos, would imply that the danger of being buried alive is after all more real than imaginary. The bishop of the orthodox Greek church in the island, the right reverend Nicephone Glycas, aged eighty, had been quite ill, and on the third of March, gradually sank, and to all appearances died, his physician certifying to his death. According to the ecclesiastical custom of the Greek church, the body was dressed in the pontifical robes and exposed for three days to the veneration of his flocks, the body lying in great state on a raised catafalque in the church of Methymore. To the surprise of the worshipers and of the attendant priests, the bishop came to life on the morning of the second day of his lying in state, and has ever since enjoyed very good health. According to the custom of the island, had the bishop been a simple layman, he would have been buried twelve hours after his seeming death, and therefore been buried alive.

There is little danger of ever burying alive a full-blooded and fat, snoring and puffing Falstaff, or any good living and convivial old soul, given to lining his paunch with larded and truffled capons, and to keeping his blood in an antiseptic condition by generous libations of good old burgundy, the best brands of Val Blatz's brewing, or some of Haraszthy's dry old California hock wine, which is fully the equal, if not the superior, of the sac or canary that was quaffed with so much gusto by the laced dandies of Shakespeare's times. To live like an anchorite, on meagre fare, mountain water, and in the contemplation of the beauties of a spiritual hereafter, may be conducive to sound kidneys and to a long life, and to much self satisfaction; but such a spiritual existence favors the creation of a constitution prone to lethargic seizures, or to go off unaccountably into an untimely state of suspended animation, and subject one to premature interment. When the capon and hock lined and saturated festive liver dies, he dies in dead earnest, and will run no risk of being buried alive, while your abstemious and spiritual liver, who patterns after the holy saints of the early Christian century, is in deadly danger of stopping to live for a while, and whilst in that state, of being buried alive by his too officious friends.

The abstemious Hindoos are much given to this form of suspending animation constitution, through their low diet, idleness and constant in-the-clouds contemplation in which they are wrapped. No hero of Ossian could ever have been hypnotized or made a subject of suspended animation. Those old bluff Caledonian warriors had too much animal spirit and too much red blood which made them too snorty and too boisterous to remain quiet long enough to appear dead. The process of constant repair consequent upon their great wear and tear made their breathing deep and heavy even when asleep. The Hindoo soon becomes so cold-blooded and so lethargic by his little wear and tear and consequently by his little need of repair, that his very sleep is as noiseless as death itself, and while his sleep may be visited by heavenly visions, it is never disturbed by the nightmare, grunts and snores that announce the labored sleep of the heavy feeder of our northern races. The robust dinner with spirituous accessories that one Scandinavian can easily consume, would be enough to bring on attacks of fatal indigestion on a dozen or more of contemplative and easily hypnotized Hindoos. The Scandinavian, however, has all the nightmare this side of the grave, while the abstemious Hindoo is liable to find his nightmare through a too premature interment. The good feeder has another advantage,—even if he is more prone to kidney disease or to atheromatous degenerations of his blood-vessels,—decomposition is more rapid in its beginning and in its appearance, and will unmistakably give strong olfactory evidence of death, whilst the same process in his abstemious Hindoo and underfed brother is most slow and uncertain. All of which makes of the question of high or of abstemious living another query fully equal to that of "The Lady or the Tiger."

It will be remembered that when Bishop, the mind-reader, died, the claim was made by his relatives that he had only fallen into a cataleptic state, during which, and while still alive, he had undergone an ante-mortem examination or dissection at the hands of the New York physicians who believed him dead to all intents and purposes, a procedure which most effectually put an end to any possibility of restoring the supposed suspended animation. From the fact that Bishop was a high and fast liver, the very opposite way of living in every way from the possessor of a constitution and nervous system requisite for the suspended animation experiments or trials, it does not occur to us, as being within the range of the possible, that any ante-mortem dissection could have occurred in his case as claimed, but we believe that Bishop was really dead before the operation.

Such an unfortunate ante-mortem dissection was once made, however, upon the person of the Abbé Prevost, the talented and spiritual author of "Manon Lescant," who whilst proceeding through a wood on foot was seized with an attack of syncope, in which he was found by some over-officious officials who at once proceeded to open him up to examine into the cause of his supposed death. The poor abbé recovered consciousness just as the enterprising anatomists had placed him in a position to carve for a model for the center figure in Hogarth's ending plate of the "Rake's Progress," where the poor rake serves as the subject of an anatomical lesson, with a longitudinal incision that split him open from chin to pubes. The feelings of the unfortunate abbé can be better imagined that described as on opening his eyes he beheld the doctors most learnedly examining into the supposed pathological derangements of his entrails.

In ancient times, the victims of the lethargic state, or of suspended animation, or of syncope of somewhat long duration, were believed to be dead whilst their spirits wandered in the Elysian fields or on the domains of Pluto, but that through the clemency of the gods the spirit had been permitted to return and again take up its abode in its earthly tenement. This misconception of the true state of affairs formed the ground-work for some of the many theological errors which have remained with us even to the present.

OPHTHALMOLOGY AND OTOLOGY

Under charge of W. F. SOUTHARD, A. M., M. D.

London Notes.—At a clinical meeting of the Ophthalmological Society, London, Mr. Anderson Critchett exhibited a case illustrating restoration to normal vision after sympathetic ophthalmitis. An attempt was made to save an eye which had been injured by a nail; the cornea and lens had been wounded. The attempt failed, and the eye was excised thirty-five days after the accident. Twelve days after the excision of the injured eye the other eye became inflamed and vision was reduced to ◁ fingers. Under the use of atropine and mercurial inunction the inflammation subsided gradually and vision was eventually restored to normal.

Dr. Bell Taylor showed a case in which transplantation of skin to the surface of the eyeball had been effected for the cure of symblepharon. The patient, a male aged forty, had symblepharon following a burn by hot slag. The lower lid was firmly adherent to the globe, covering the lower third of the cornea. Repeated attempts to secure separation of the adherent tissues by the usual methods failed. Eventually the lid was dissected off the eyeball, and a piece of skin from the upper eyelid of the uninjured eye was transplanted on the surface of the globe, to which it readily became united.—*London Lancet,* May 23, 1896.

Heredity of Acquired Anomalies of the Visual Organ.—Dr. Mulder, at the eighth session of the Ophthalmological Society of the Netherlands, says that for ten years he has enucleated the right eye of consecutive generations of two hundred rabbits immediately after birth without the production of an hereditary anomaly. On the other hand, animals which have lost an eye by infection—for example, tuberculosis—reproduce individuals with congenital anomalies of the eye, such as polar cataract, microphthalmia and coloboma of the eye. Mutilations, then, are not transmitted by heredity, but alterations resulting from infection are transmitted. There is probably a direct action of the infectious agent on the germ plasma.

Etiology of Descemetitis.—Dr. H. Snellen in the *Ophthalmic Hospital Reports*, October, 1895.—Dr. Ridley again considers the question of descemetitis. He classifies this disease with a more extensive one, serious cyclitis, an affection which does not always produce deposits on Descemet's membrane. In a certain number of cases a plastic exudate arising from the ciliary bodies clogs the interstices of the zonule of Zinn, thus producing an increase of intraocular tension with advancement of the lens system. In other cases the ciliary exudate engorges the spaces of Fontana, and thus produces an increase of tension with deep anterior chamber. Dr. Ridley claims that the masses of bacteria found by me on Descemet's membrane may be the cause of the disease, and he thinks that the infectious agent first reaches the ciliary body by the circulation. I have never doubted the fact that descemetitis may be the result of an inflammation of the deep parts of the eye, but I have found that there are cases in which the deposits of the membrane of Descemet are the only alteration.

Operation for Progressive Myopia.—Dr. Valude reports to the Academy of Medicine two cases of operative treatment of progressive myopia. The first case, a man 35 years of age, a myopic of more than 25 D. No glass improved vision. At 50 centimetres with or without glasses he could scarcely count fingers. Reading was impossible. The ophthalmascope revealed only the ordinary lesions of myopia of high degree. There was a large peripapillary staphyloma in each eye, with the macular region somewhat pale, but no real atrophic lesions, and nothing abnormal in the periphery of the deep membranes. The vitreous was perfectly transparent. Operation was proposed and accepted. He first made a preparatory iridectomy and discision of the lens; 2d, after five or six days he evacuated the soft lens masses; 3d, after several weeks he made a capsulotomy of the membrane. Result: Permanent success. V=$\frac{1}{6}$ without glasses. Reads the smallest letters of Snellin's test type *without glasses*.

Second Case.—A farmer 30 years of age, a myope of 25 D. each eye. Myopia has progressed rapidly for several years. Counts fingers at 1 metre with right eye, and with the left at

60 centimetres. Reads by putting his nose against the paper and then inclining the head either to one side or the other. No glass improves vision. With the ophthalmoscope it was found that the media were clear, and that there were large peripapillary staphylomata common to this type of myopia, but that the macula was free from choroidal lesions. There was, however, at this point, some pallor. Nothing abnormal in the periphery of the fundus. Result of operation: $V=\frac{1}{3}$ with sph.—2.50 D. For reading Snellin test type is best seen with sph. +3 D. No further progress of lesions since operation.

Dr. Vossius reports the results of discision in nine cases of progressive myopia. The maximum being —30 D., and the minimum —10 D. In six of these cases the improvement after operation increased from ability to count fingers to $\frac{1}{3}$ of normal vision.

Dr. Dubarry (in *Normandie Medicale*) reports two successful operations for progressive myopia of high degree. The first case a farmer, aged 28. Could not find glasses strong enough to give him sufficient vision. With a —24 D. glass $V.=\frac{1}{8}$ in each eye. Marked posterior staphyloma, and numerous traces of myopic choroiditis. Result of operation: after two weeks $V=\frac{1}{3}$ with —2 D. With +3 D. patient could read No. 3 de Wecker's test.

Second case was a woman, aged 26. Right eye, myopic, 22 D.; left eye, D. Ophthalmoscopic examinations revealed clearly defined retinitis in right eye, and in left eye an extensive median staphyloma with here and there some white patches of atrophic choroid. Result of operation by discision $V=\frac{1}{3}$ with —1.5 D. glass; with a +4 D. reads No. 2 of de Wecker's test. Patient can perform domestic duties without glasses.

In conclusion, Dr. Dubarry thinks that this operation should be reserved for cases of myopia of high degree, where the persons so affected cannot perform their duties without pain and fatigue. All eyes having a myopia more than 16 or 18 D. may be considered as being excessively myopic. He also thinks that the lens should be removed whenever myopia is met with which increases from day to day, and which by its progress threatens to cause blindness. Dr. Dubarry is content to operate upon one eye, leaving the other as a witness.—*Annales D'Oculistique*, Am. Ed., January, 1896.

OBSTETRICS.

Under the charge of D. A. HODGHEAD, A. M., M. D., San Francisco.

Two Ectopic Pregnancies.—There seem to be but five authentic cases reported of ectopic pregnancy occurring twice in the same patient, treated in each instance by abdominal section and followed by recovery. Once each is credited to Lawson Tait, J. Veit, Olshausen, Charles A. L. Reed, of Cincinnati, and recently Dr. J. F. W. Ross, of Toronto, Canada, reports another to the *American Journal of Obstetrics*.

Subcutaneous Emphysema in Labor.—An interesting case is reported by A. Ulrik (*Ugeskrift fur Laeger*) in which during violent efforts to expel the child, the tissue of the lung was ruptured, probably near the hilus, producing a decided subcutaneous emphysema of the face, neck, breast and back. There was extensive swelling, crepitation was discernable, the voice was hoarse, but the lungs were apparently normal. The patient recovered completely in two weeks.

Curettage After Labor.—Dr. Baer, of Philadelphia Polyclinic, asserts that the curette is employed entirely too frequently after labor, and that those who use the curette and irrigation constantly have less success than those who do not. If the uterus contains a substance that demands removal then the curette may be of service, otherwise the blood-vessels which nature has closed are uselessly opened, the structures which have been formed for a distinct purpose destroyed, and the purpose for which they were formed defeated.

Subacute Bladder Inflammation.—According to the experience and teachings of Dr. Baldy, of Philadelphia, a large percentage of female patients suffering from subacute vesical symptoms, such as frequent and painful micturition, bearing-down sensations, and a feeling after micturition that the bladder is not emptied, may be relieved by dilating the urethra. He takes occasion at the same time to cast a slur at the cystoscope by asserting that the greatest amount of practical good that has been accomplished in bladder troubles by this instrument is owing to the dilatation necessary for the introduction of the instrument.

Position After Labor.—Dr. Jelks, of Barnes Medical College, St. Louis, teaches that the absolute quiet so often enforced for ten days after confinement, does not always produce beneficial results, and may even effect injury. Constantly reclining on the back may tend to encourage, if it does not actually produce, retrodisplacements, particularly in cases where the perineum has been ruptured and not properly repaired. No obstetrician should insist upon keeping his patient constantly upon her back. Excellent obstetrical authorities, such as Parvin and Goodsell, have for some time taught that when the patient's strength would admit, she should be allowed to sit up when evacuating the bladder or rectum, and that after three or four days have passed she may be warmly wrapped up and lifted to an easy-chair. The upright position favors drainage, and as long as the patient makes no effort to walk or otherwise exert herself, no fear need be entertained as to uterine displacements or other injurious consequences. This practice presupposes the labor to have been normal and free from subsequent complications.

Symphyseotomy.—Dr. E. A. Ayres has, by request, described, before the New York Obstetrical Society, his method of dividing the symphysis. Beginning half an inch above the meatus, practically at the base of the pubic arch, an initial incision is made one-fourth of an inch wide, large enough to admit a probe-pointed bistoury. The urethra is held to one side by a male urethral sound while the bistoury is pushed up to the top of the symphysis. The index finger of the other hand is introduced into the vagina, against the tip of which the knife is carried, then brought in contact with the symphysis posteriorly by pressure against the anterior vaginal wall. The left finger serves as an excellent guide to the position of the joint, while the right finger is close to the point where the cutting is done. The joint in front is V-shaped, and hence easier of access from that direction. In making the cut, but little up and down motion is needed, it being advisable to keep the knife close to the guiding finger. A slight lateral motion may be made as the knife passes through the joint. The index finger of the left hand is kept close to the knife as it passes down, to avoid cutting posteriorly, and also to prevent injury to the urethra or bladder.

He uses a probe-pointed bistoury, although when the knife is carefully guided by the index finger such may not be required. The hemorrhage attending this method is slight, amounting to not more than two or four ounces. The knife need not enter the bulbous tissue below the symphysis, and in the field of operations there are no large vessels. Hemorrhage is readily controlled by slight pressure. The pubic bones are brought together and the wound lightly packed with iodoform gauze. No sutures are used.

At the same meeting, a general discussion was engaged in as to the result of symphyseotomy, and even as to the advisability of the operation at any time. It was asserted that the method of Dr. Ayer was not so surgical as the open method, and one likely, at some time or other, to cause serious hemorrhage. One authority claimed that the operation was at all times a dangerous one, giving a mortality of from ten to twenty per cent in the children, and possibly eight to ten per cent among the mothers. His reasons for opposing the operation were: (1) The possibility of delivering the child through a contracted pelvis by version. (2) The danger of sepsis in an operation which could never be made elective. (3) The extreme danger of deep injury to the vagina. (4) Imperfect union at the symphysis. (5) The formation of fistulous tracts into the urethra, bladder, and vagina. It was believed that if the unsuccessful cases were reported there would not be so many physicians in favor of the operation. Patients very seldom had a smooth convalescence, union at the symphysis was never perfect, and there were usually irregular fevers extending over many weeks. Considered from all points of view, the operation was more dangerous than Cæsarian section.

The First Inspiration.—It is several years since Ahlfeldt asserted that certain movements, apparently originating within the uteri of pregnant women, were the result of feeble respiratory efforts on the part of the child, and that the inspiration which is designated the first of the new-born child, is, in reality, not entitled to this distinction, but is only the first *deep* inspiratory movement. Oslhausen, on the contrary, maintains that the movements discerned by Ahlfeldt were not due to the respiratory efforts of the unborn babe, but resulted from the aortic pulsations transmitted through the uterus to the abdominal walls. Without going into the pros and cons regarding the possible truth or falsity of these theories, a case in point has recently occurred in the practice of Dr. Bruell, of Dees, who published the account in the *Weiner Klinische Wochenschrift.* Dr. Bruell was called in an obstetric case that had been in labor forty-eight hours. Two midwives had made unsuccessful efforts at extraction. On entering the room, he heard distinct cries proceeding from the uterus of the patient. These cries were loud enough to be heard in an adjoining room. On examination, a breech presentation was found. In order to bring down a foot, a hook was employed, the application of which brought forth a sharp cry from the fetus. The child was delivered asphyxiated, but revived under artificial respiration, and a dead twin fetus was then extracted. The mother and child did well.

Certain colleagues of Dr. Bruell were so ungenerous as to suggest that he and the midwives had mistaken the rumbling of gas in the mother's bowels for the cries of the fetus, and in defense he published an account of the case, together with a statement of the conditions under which it is possible for an audible intra-uterine cry to be uttered. These are: (1) Interruption of the placental circulation, (2) entrance of air into the uterine cavity, (3) absence of amniotic fluid, or at least its partitioning off in such a way as not to enter the air passages of the child. In this case there was ample opportunity for the exercise of these conditions, with the possible exception of the first, which is not a necessary one, since it is well known that respiration and crying are not dependent upon an interruption of the placental circulation.

Olshausen opposes the view taken by Schwartz that the cause of the first inspiration is dependent upon the interruption of the placental circulation, and on the basis of numerous observations has concluded that apnea alone does not determine the first respiratory movement, but that in head presentations the cause lies in the great compression to which the thorax is subjected during the passage through the vagina, and its sudden release at the moment the breech is born. Thus the end of parturition brings with it, under normal conditions, a naturally produced movement of artificial respiration. In breech presentations and Cæsarian sections this "artificial respiration" will not be present, and hence children coming into the world under these conditions are apt to lie in an apneic state for some time before normal respiration is established.

This sudden release from pressure might also well account for the recognized danger in breech presentations, of respiratory movements taking place upon the escape of the body, and before the head is released from the vagina.

TRANSLATIONS FROM THE FRENCH.

By W. L. ADAMS, M. D., Palo Alto, Cal.

Secondary Cancers of the Umbilicus.—In the February number of the *Revue de Chirurgie*, Mm. Quénu and Longuet publish an article upon secondary cancers of the umbilicus, of which we give a resumé:—Secondary cancers of the umbilicus are not rare, although formerly considered as a simple curiosity. Damaschino was the first to point out their importance as signs of deep cancerous lesions, and to-day it is proved that cancer of the abdominal viscera is quite frequently accompanied by secondary malignant foci in the umbilical region. Primary cancer, too, may occur in this region, but is much rarer. Contamination of the umbilicus in case of malignant tumor takes place much more frequently in women than in men, and either by means of the lymphatic system, or as a result of continuity of structure. The shape of the tumor varies greatly. Most frequently it forms an indurated disk, bi-lobed, the constricted portion between the lobes being formed by the navel itself. Sometimes this umbilical nodule is formed late and is overlooked in the *ensemble* of cancerous symptoms; sometimes, when the nature of an abdominal tumor has been in doubt, the involvement of the umbilicus is a valuable sign in differential diagnosis; and sometimes it is not only the fore-runner of the ordinary symptoms of abdominal cancer, but is the only external sign of latent malignant disease.

Surgical Operations Upon Diabetic Patients.—In a recent clinic, reported in *La Semaine Medicale*, M. Pierre Marie discusses the question of surgical operations upon diabetic patients. He says:—There exists an article of faith among surgeons according to which one should not operate in cases of diabetes on account of the danger of exposing the patient to the risk of the most redoubtable complications. Undoubtedly, before the advent of modern methods in asepsis and antisepsis, surgeons were right in hesitating to operate on these cases. But it does not follow that the same prudence must be shown now-a-days. The truth of yesterday may become the error of to-day. Formerly there was no antisepsis and still less asepsis, and as the organisms of diabetics are a most favorable medium of culture for the development of microbes, results of operations were almost invariably unfavorable. But with our perfected methods we can be more daring, and the writings of Reynier, and Léon

Legendre (Thése de Paris, 1895) demonstrate that diabetics can be as safely operated on as any other class of patients. One point, however, must be always borne in mind—in these cases the risks of intoxications are especially great, therefore it is better not to make use of any antiseptics whatever, but to rely upon rigorous and thorough asepsis.

Dr. and Mrs. Winslow Anderson have gone to Honolulu for a five weeks vacation. The doctor intends to visit the leper colony to note the results of the latest methods for treating leprosy. We wish them a pleasant journey and a safe return.

An Unusual Termination to a Malpractice Suit.—Dr. W. O. Henry, of Omaha, has had a somewhat novel experience with the courts. He sued a patient for the amount of his bill and was in turn sued by the man for malpractice, damages being set at $8,000. Not only was the doctor victorious in disproving malpractice, but he convinced the plaintiff and his attorney of the justice of his cause, and the former went out and borrowed $345 with which to pay what he owed for medical services, to save which he had instituted the malpractice suit.—*Chicago Medical Record.*

Discussion of Treatment of Adenoid Vegetations.

At the Congress of the French Société de Laryngologie, Otologie et Rhinologie held at Paris recently, the old idea that persons subject to adenoid growths are deficient in intelligence, was disproved and the fact cited that Canova and Charles V were "adenoidans." Medication alone is absolutely ineffective. Digital palpation must accompany the use of the mirror, and the only contra-indications to an operation are hemophilia, arterial anomalies and activity of adenoid growth. Washes were strongly condemned by the majority and the use of anæsthetics by a few. Others urge its necessity as a matter of course and use hydrobromic ether. Texier stated that ten to fifteen grams are sufficient and no accidents follow the use of this small amount. Polo gives a few drops of ferric chlorid for a few days previously to prevent hemorrhage. Sea air is generally considered to have an unfavorable effect, and some cases were reported of otitis of the middle ear, following a stay at the seashore.—*Bulletin Médical*, May 10.

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Editorial.

THE BICYCLE AND THE PERINEUM.

An experience of several years with the bicycle has convinced us that its future usefulness is bound to be greatly restricted, especially for elderly men, unless a form of saddle can be devised which will not press upon the perineum as does the present saddle. Of late, considerable attention has been given to disturbances of the bladder, urethra and prostate which have been recognized as due to this pressure. Although the greatest ingenuity has been expended in improving the wheel in all its other parts, the saddle is practically the same as it was ten years ago. Many men who have learned to ride the wheel have found so much discomfort following its use that they have felt obliged to give up a form of exercise which, to our minds, is the most healthful, the most exhilarating, and the most pleasurable of all out-door sports, equally enjoyed by both sexes and all ages, from infancy to old age. The latest acquisition to the ranks of wheelmen is an octogenarian.

Mr. Arthur Chas. Roper, F. R. C. S., etc., an English surgeon, and a bicycle enthusiast, has written in *The Lancet*, for May, the very best paper on the subject of bicycle seats that it has been our fortune to read. He gives a most interesting account of his personal experience with his wheel during last summer. He says that when he rode any considerable distance, and at a good pace, he found it necessary to stop and urinate every hour, or oftener. He found that his penis was cold and shrunken; the scrotum was also in a similar condition. The return to the normal state was attended with considerable aching. When urinating, the last drops were not

shut off promptly. He also found that he had to urinate oftener at night. He says that many bicyclists have complained to him of the same symptoms. At times he suffered so greatly from pubic pains and frequent micturition that he was forced to seek relief in hot baths and opiates. "I was soon forced," he says, "to the unpleasant diagnosis of cystitis, which I could not and can not doubt was traumatic in its origin, and was probably started by bruising and constant jarring of the bulbous portion of the urethra." In order to show how these disturbances may be brought about, he gives a brief but concise description of the anatomy of the perineum. "Between the skin and the bone the inferior pudendal nerve, and between the skin and triangular ligament the bulb, urethra, and superficial perineal nerves, and the accelerator, urinæ, and erector penis muscles with their nerves." Pressure exerted between the sides of the pubic arch must compress these structures more or less against the bone and the unyielding triangular ligament, thus the pressure on the sensory nerves of the part, and on the motor nerves which supply the muscles of the urethra, accounts for the shrivelling and aching of the penis and inability to completely empty the urethra after micturition.

The writer then demonstrates that the ordinary saddle fulfills the conditions for producing just the pressure to cause all this trouble. In discussing a form of saddle which will relieve the perineum of this pressure, he says that as "the transverse diameter of the outlet of the pelvis is four inches, and one and one-half inches must be added to either side, if we are to derive full benefit from our natural padding, there must be at least seven inches of suspended leather behind upon which to sit. Even with a saddle thus constructed, the moment we begin to pedal, our muscles, acting upon the saddle as a fulcrum, force us forward to its narrow portion. If we attempt to overcome this by tilting the saddle, the peak at once presses against the perineum. The same thing happens when the rider leans forward, as most persons do when riding against the wind." Our author sums up the whole matter of saddles and seats by saying that "in spite of the advertisements of the makers of anatomical seats and the opinions of many eminent medical men, I contend that, for the work which has to be done on it, the saddle type of seat is the best, though I contend, with an equal conviction, that the ordinary make of saddle is bad and deleterious." As the result of a personal study of upwards of eighty seats and saddles, he finds none which are entirely free from objections. Those without points, that is seats, which do not press upon the perineum, are not easy to ride, as the rider is not secure from falls liable to follow sudden jars.

Dr. Roper recommends the *seat* for those having prostatic trouble, and who do not care to ride fast. These points should be carefully noted by physicians, for many obscure troubles of the bladder and adjacent parts may be due to the pressure of the saddle. Elderly men especially should be warned of possible danger from excessive riding of the bicycle, as saddles are now constructed. A great field is open to the inventor in studying a form of saddle which will be at the same time easy to ride and free from danger.

DR. HENRY GIBBONS, JR.

We inadvertently overlooked, in the June number, extending to Dr. Henry Gibbons, Jr., our congratulations on his election to the Presidency of the State Medical Society. We may at the same time congratulate the Society on its choice of Dr. Gibbons. The Society is also to be congratulated on its selection of Dr. Thomas Ross as Treasurer. Dr. Ross will confine his attention more to the duties of Treasurer and less to the politics of the Society than the former incumbent, Dr. J. H. Parkinson, was in the habit of doing. We hope that the next meeting of the Society will be better attended than have the past several, and that a large number of new members may be added. And what is more to be desired, viz.: that the members will be present in the hall at the reading of the papers, and join in discussing them.

The Mississippi Valley Medical Association will hold its Annual Meeting at St. Paul, on October 20, 21, 22, and 23. Addresses will be given by Dr. H. N. Moyer, of Chicago, on Medicine, and by Dr. Horace H. Grant, on Surgery. Dr. H. O. Walker, of Detroit, Mich., is President. Dr. C. A. Wheaton, Chairman Committee of Arrangements.

The Medical Book Store (Johnson & Emigh) has been moved from 10 Post Street to the Emporium Building.

AEROPOROTOMY.

Dr. S. W. Kelly, of Cleveland, Ohio, sends us a brochure on the birth of a new word, which he has brought into the world, viz., "Aeroporotomy." To let him speak for himself: "I have long felt the need which should include in a class all the various operations for letting air into the air passages. For instance, a doctor will say, 'It appears to me that some operation is necessary to relieve the stenosis of the larynx. Whether it should be an intubation or a tracheotomy, I will leave for you to determine.' And I may answer, 'Yes, the indications are imperative to let in more air.' In such round-about phrases is one led to express a meaning which might be conveyed by the generic term which I now propose. We have the various operations, tracheotomy, laryngotomy, laryngo-tracheotomy, and intubation, but we have no generally accepted or acceptable word to include all these without specifying which." "I would be glad to have an expression of opinion from yourself and your readers upon the acceptability of the new word proposed."

A State that can grow a president every four years can surely grow a new word occasionally. Seriously speaking, we are inclined to think well of Dr. Kelly's new word. The English language is like the English people, it gobbles up everything. If a piece of land strikes the English fancy, up goes the union jack; henceforth it is part of the British Empire. If the English linguist finds a word that can be made practical and useful, it is placed in the dictionary; henceforth it is part of the English language. The coinage of useless words is to be deprecated. The coinage of useful and practical generic terms is a matter of great importance. There is no language spoken that is so *expandable* as the English, and none whose use is so rapidly expanding.

POISON IN CANNED PEAS.

Consumers should beware of using canned peas, since they contain a large percentage of sulphate of copper. *The Lancet* states that a conviction was obtained against a grocer in England for selling preserved peas containing 3.16 grains of copper. According to this journal, the consumers of canned peas in England annually take as food about four tons of copper, based on a consumption of 20,000,000 cans! As the annual consumption of canned peas is undoubtedly as great in the United States, it would be a wise move for our boards of health to have analyses made of a few samples.

VACANCIES IN THE MEDICAL CORPS OF THE U. S. ARMY.

There are at present three vacancies in the Medical Corps of the U. S. Army, and it is expected that at least three more will occur during the present year. An Army Medical Board will meet in Washington early in October for the examination of candidates. The requirements for admission to the Medical Corps are stated in a circular issued by the Surgeon-General of the Army, dated May 21, 1896, and approved by the Secretary of War, as follows: "Permission to appear before the board is obtained by letter to the Secretary of War, which must be in the handwriting of the applicant, giving the date and place of his birth, and the place and State of which he is a permanent resident, and inclosing certificates, based on personal acquaintance, from at least two reputable persons as to his citizenship, character, and habits. The candidate must be a citizen of the United States, between twenty-two and twenty-nine years old; of sound health and good character, and a graduate of some regular medical college, in evidence of which his diploma will be submitted to the board. The scope of the examination will include the morals, habits, physical and mental qualifications of the candidate, and his general aptitude for service; and the board will report unfavorably should it have a reasonable doubt of his efficiency in any of these particulars." The candidate will acquire the particulars of the examinations by circular when he makes his application. We may say that the candidate is subjected to three examinations, viz.: First, physical; second, educational; and third, professional. Having passed the first, there is nothing severe in the second and third. A fair education, such as any professional man should possess. Every graduate in medicine should be able to pass the Army examinations; unfortunately hundreds can neither pass the second nor the third. Our advice to any young physician who thinks of a military career, is to enter the Army, and on no account to pass for the Navy, let the examination be never so easy. We suggest that the Secretary of the Navy place over the entrance to the examination hall: "Who enters here, leaves all self-respect behind." The history of Dr. Kirschman's treatment illustrates the life of a physician in the U. S. Navy. The line officers seem to resent his considering himself a gentleman. As brutal and unjust as was the treatment of Dr. Kirschman by the line officers, it was outdone in brutality and injustice by the President of the United States—Cleveland.

BORAX IN MILK.

While the addition of boric acid to milk does not make it poisonous, it produces certain deleterious effects, which should cause its use to be prohibited. Chemically, the presence of borax not only tends to neutralize the development of acids, which takes place during the presence of fermentation, but it precipitates and renders insoluble certain salts contained in the milk which gives to it a portion of its value as an article of food. Besides this, its neutralizing action upon the juices of the stomach tends to retard digestion. Bicarbonate of sodium, so frequently used by mothers and nurses to keep milk sweet, has a similar action.

Dr. Charles A. L. Reed, of Cincinnati, has been selected by the European Committee on Organization of the International Periodical Congress of Gynecology and Obstetrics, as Honorary President of the meeting of that body to be held in the City of Geneva, Switzerland, the first week of September this year.

"San Francisco is not far behind New York with its new cures for consumption. Within the past few weeks the local press at several times devoted columns to a new cure that is being used at the City and County Hospital, its methods of administration, histories of a few cases, with photographs of the new-cure doctor."—*American Medico-Surgical Bulletin.*

The Wm. F. Jenks Memorial Prize.

The fourth Triennial Prize, of four hundred dollars, under the deed of trust of Mrs. William F. Jenks, will be awarded to the author of the best essay on "The Etiology and Pathology of the Endometrium, including the Septic Inflammations of the Puerperium." The prize is open for competition to the whole world, but the essay must be the production of a single person.

The essay, which must be written in the English language, or if in a foreign language, accompanied by an English translation, must be sent to the College of Physicians of Philadelphia, Pennsylvania, U. S. A., before January 1, 1898, addressed to Barton Cooke Hirst, M. D., Chairman of the William F. Jenks Prize Committee. Each essay must be typewritten, distinguished by a motto, and accompanied by a sealed envelope bearing the same motto and containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay.

The Committee will return the unsuccessful essays if reclaimed by their respective writers, or their agents, within one year. The Committee reserves the right not to make an award if no essay submitted is considered worthy of the prize.

REPORT OF THE STATE BOARD OF HEALTH.

By J. R. LAINE, M. D., Secretary State Board of Health.

DEATHS.—Reports from fifty-eight cities, towns, villages and sanitary districts, aggregating a population of seven hundred and thirty-seven thousand two hundred and seventy, show a mortality of nine hundred and eighty-six—a death-rate of 1.33 per thousand for May, or 15.96 per thousand per annum.

There were one hundred and sixty deaths from consumption, eighty-one from pneumonia, thirty-three from bronchitis, eight from congestion of the lungs, one from diarrhœa, nine from cholera infantum, eighty-one from other diseases of the stomach and bowels, six from diphtheria, six from croup, one from measles, three from whooping-cough, twelve from typhoid fever, five from malarial fevers, eleven from cerebro-spinal fever, forty-two from cancer, ninety-two from diseases of the heart, four from alcoholism, and four hundred and thirty-one from all other causes, eight of which were from la grippe.

PREVAILING DISEASES.—Reports of prevailing diseases from forty-one localities outside of the larger cities and towns, give sixty-eight cases of pneumonia, one hundred and twelve of bronchitis, fourteen of pleurisy, twenty-seven of congestion of the lungs, fifty-one of diarrhœa, twenty-eight of dysentery, nineteen of cholera morbus, eight of cholera infantum, four of diphtheria, nine of croup, forty-nine of scarlatina, one hundred and ninety of measles, eighty-four of whooping-cough, one hundred and seventy-six of la grippe, twenty-six of typhoid fever, one hundred and forty-four of malarial fevers, four of cerebro-spinal fever, eighteen of erysipelas, ninety-seven of rheumatism, sixty-nine of neuralgia, eighty-seven of tonsilitis, and forty-three of pharyngitis.

Measles was reported epidemic at Redlands and Red Bluff.

Whooping-cough was reported epidemic at Forest Hill, Rio Vista, Redlands, and Cedarville, and mumps at Knight's Ferry and Watsonville.

Proceedings of Societies.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

The regular meeting of the San Francisco County Medical Society was held May 12th, 1896. The President, Dr. W. Fitch Cheney, occupied the chair.

The following applicants for membership were proposed and referred to the Committee on Admissions: Dr. F. Fehleisen, a graduate of Wurzberg, Germany, by Drs. Pischl and Petrie; and Dr. J. C. Stinson, a graduate of University, Trinity College, Ontario, by Dr. Campbell Ford and Dr. A. P. Woodward.

Upon a favorable report from the Committee on Admissions, Drs. A. Nusbaum and Chas. V. Cross were elected members of the Society.

The Secretary stated that the rent of the hall had been reduced one dollar per month.

DR. W. S. THORNE read a paper entitled

The Position of the Red Corpuscle in Forensic Medicine,

and stated that through the courtesy of the San Francisco Microscopical Society, Dr. Eisen of the Academy of Sciences and Messrs. Riedy, Grimwood and Freund, he was enabled to exhibit before the Society many specimens of the red corpuscle of the human being, reptiles, and others.

The President, at the conclusion of the paper, granted a recess of five minutes that the members might examine the specimens.

DR. EISEN, of the Academy, opened the discussion and said: I have little to say regarding the position of the red corpuscle in forensic medicine; but many points, in fact the writer's whole paper, was of great interest to me. I wish to speak of a specimen of batrachian blood that I here exhibit that has very peculiar characters. There has been an investigator in Philadelphia who said that there was no membrane to the red cells. Now in batrachian blood there is, to an absolute certainty. Which can be demonstrated by putting some in a salt solution on a warm stage, when in a short time only a thin membrane remains, which stains distinctly. In the blood here shown, that of batrachiseps attenuatus, the size of the red cell varies greatly. Some are from one-half to seven times the size of human. The shapes vary too, some are oblong, round, biconcoac, etc. And as to nuclei, we may now find only one or two to a slide, while later on in the fall 10 per cent of the cells will be nucleated, thus again showing its peculiarity.

Dr. Douglass W. Montgomery: I have had some little experience in measuring and investigating the red corpuscle and will say that, when it comes right down to a single case to state positively whether or no a certain specimen of blood is of the human or of a domestic animal, it is a very "ticklish" proposition. I recall one somewhat celebrated case here, where it was tried to distinguish between a pig's and human blood. The specimen was several months old, and was a stain on a pair of overalls. It was an exceedingly difficult matter to get the red coloration or corpuscles at all, of course the gross macroscopical appearance was of a blood stain, but to differentiate by the microscope was a very difficult proposition, one that was beyond us. I think it would be hazardous in any case for an expert to say that a given specimen microscopically, was or was not human. At that time we got a fresh sample of hog's blood and I must say that the difference could not be made out to a certainty that would hang a man. We must take into consideration the slight difference between the human and hog's corpuscle in size. Neither may be in "roulette" or overlop. We do not deal with square corners, we deal with soft substances, and when once dried and filled again who can say that they are as full or of the same size as before? In the measuring we have also to take into account the personal equation. One investigator may get a consecutive lot of measures very similar, while another with the same lot and conditions may not. The size would certainly differ when one measured from the outer or the inner edge. Take men at a consultation, clinically, they will differ; so too here. Men who are used to the microscope, its errors, etc., will get up before a jury, who haven't a medical or scientific man among them, and talk to them practically in an unknown tongue; there are very few of us who would understand, let alone the average juror. The jurors take the figures as being absolutely fixed, and I say that it is going it a little too fine to make such differential diagnoses. Suppose even an experienced microscopist should find an isolated corpuscle. I say that it would be next to impossible for him to state positively that it was of a human being. There are spores of some plants that very much resemble human blood corpuscles, and have been mistaken for them, and by good men too.

Mr. Freund: I have listened with great interest to Drs. Thorne's and Montgomery's words. I believe I know the case spoken of by Dr. Montgomery, I was approached on the case and at the time I said that it would be impossible to hang a man on such evidence, that it would be radically wrong to do so.

Dr. Gray: The paper by Dr. Thorne and Dr. Montgomery's words are good, but to two or three points no attention has been given. Some three years ago I was appealed to by a prosecuting attorney to prove the character of blood stains on a butcher knife, the prisoner stating that the stain was from hog's blood, he having killed a hog. It so happened that at the time of the trial my testimony was not needed. I made diagrams of the blood of man and the hog, and if I would submit them to you gentlemen here this evening you would say they were different. I was surprised this evening that no mention was made to Dr. White, whose experience in blood researches are very great. As to measurements, Dr. White measures from the outer extremity of one to the outer extremity of the other. If all measurements were taken so, or by any other definite rule, we would find not so many differences. To be sure there is the personal equation, a constant quantity, and too the stage and micromillimeter. As to the jury, Dr. Montgomery's words are good in a way; they should not only be acquainted with the facts but should be made to share our responsibility. Now, I think the best method to pursue in blood examinations is this: take a good stage micromillimeter, a power of $\frac{1}{12}$ to $\frac{1}{8}$ magnifying 1,000 to 1,500, and make use of the camera lucida, drawing charts by it. Make 50 or 100 corpuscles, then the question as how to measure them would not come in, they are drawn and can be seen by the eye. These, then, are shown to the jury and they then would decide. The personal equation would be the same all the way through. Another case where a culprit said that he had shot a jackrabbit and got some of its blood on his clothes. It so happened that the blood corpuscles of the jackrabbit had never been measured and they were found much smaller. Just before the microscopist was called to the stand to testify, the accused found his plea was no good and plead guilty.

Dr. Davis: To-day I met Dr. Thorne; he said that he was to read a paper on rather a poor, dry subject to-night and hoped that the members would not become bored. We have heard the paper, and I am sure that not only have none of us been bored, but that we have heard and appreciate his most excellent paper. He has demonstrated the fact that he has given the subject great care and attention. There can be no doubt that the consensus of opinion of all men investigating the subject from a medico-legal point of view is against conviction in such a manner. It is not possible to absolutely differentiate between the blood of man and some other animal, and we must all agree with Dr. Thorne that it is impossible to convict on the evidence of a microscopical examination. The chemical examination is not a good method to distinguish the difference either, though it is said that the hæmatin or hydrochlorate of hæmatin existing in human blood is, by a certain chemical process, thrown down, but such an examination could only be made with a quantity of blood.

Dr. Chas. G. Kuhlman: Mr. President and confrères, before the author concludes his paper I would like to make a few remarks upon this most interesting and important subject, but unlike those who have preceded me, and have most flagrantly violated the five minutes' rule, I will try to confine my remarks within that limit so as to set an example. As I have been drawn into two murder cases during my professional career, and have sat and listened to "expert medical testimony" in the most celebrated murder case in the history of the world, that of Dr. Cronin, held a few years ago in Chicago, where medical men of international reputations, such as Prof. Haines, Bellfield, Tallmann and others recognized as authorities on bacteriology, microscopy and chemistry, gave testimony regarding the position held by the red blood corpuscles in forensic medicine, I feel that I am competent to give an emphatic opinion upon the subject. I feel like thanking the author for this paper to-night as it confirms a portion of a paper written by me by special request a few months ago and published as the leading article in the April number of the *St. Louis Surgical and Medical Journal* under the heading of "The Microscope as a Guide in Medicine," it being in opposition to the microscope. While it is possible to differentiate microscopically between the red corpuscles of mammalia and those of birds, reptiles, amphibia and fishes owing to the "fact" that the latter are possessed of a reticulated nucleus, still it is impossible to differentiate between those of the different kinds of mammalia, as they may vary in size within any one kind from the 1 to the 1 of an inch in diameter. This was fully brought out and conceded to by the experts in the Cronin case.

As the author has made no mention of "blood crystals" in his paper, and inasmuch as they finally became the pivot upon which the expert testimony revolved in the Cronin case, I will take up that part of the subject and complete the paper. Normally, the geometrical outlines of "blood crystals" in different kinds of mammalia may vary, from trihedral in the guinea pig, pentagonal in the squirrel, octahedral in the rat and mouse, and tetrahedral or quadrilateral prisms in man and others. These crystals may, however, change from their normal forms into a variety of forms, polymorphia forms as it were, under the influence of various substances causing oxidations and deoxidations, giving rise in turn to hæmin, hæmatin, hæmatoidin, etc., and they may also change form under external conditions of heat, light, moisture, magnetism, and electricity. From the foregoing, we are justified in arriving at the following conclusions: *First.* That the red corpuscle, as a microscopic unit, holds no position in forensic medicine. *Second.* That "blood crystals" hold no position in forensic medicine. *Third.* That, owing to natural and accidental defects in microscopes and microscopists, the microscope holds no position in forensic medicine.

Dr. Thorne, in concluding, said: The best literature on this subject, that of Sternberg, White and Wormley, gives no credence to the crystaline forms, as the size and shape, etc., are exceedingly uncertain.

Under head of verbal communications, Dr. Charlotte B. Brown read a report of a case of abdominal section for the removal of a retroperitoneal fibro-lipoma whose attachment to the uterus by very small pedicle had given away. Also the complete hysterectomy of the fibroid uterus four months pregnant, one of the fibroids being impacted in the vagina below the cervix. The fœtus was deformed, kyphosis and complete eventration. Total weight of tumor 20 lbs. The patient recovered. Specimens and photographs of the case were exhibited.

During the reading of this paper, Dr. Kuhlman rose to a point of order, that inasmuch as the Society was under the head of verbal communications, the reading of a paper was out of order.

The **President**: Strictly speaking, the doctor is correct, but I think that we might pass on over that this time.

On opening the discussion, **Dr. E. E. Kelley** said: I have been, and I am sure the Society has been, greatly interested in this rare case reported by Dr. Brown. Such cases cannot help being of great instruction to us.

Dr. Wanzer thought the case very interesting also.

Dr. Philip King Brown: I remember a case of Dr. Warren's, of Boston, where the abdominal contents were exposed, there being no coverings for the abdomen at birth. The doctor closed the cavity and the child survived it all right, but I do not know whether it grew up. I think the case was reported.

Dr. C. E. Davis: I think that the Society should move a vote of thanks to Dr. Thorne and Dr. Brown for their excellent papers, and to our visitors, Dr. Eisen, and Messrs. Freund, Riedy, and Grimwood, for their excellent exhibition of specimens under the microscopes. I therefore put it in the form of a motion. Motion carried.

The **President** said that at the next meeting there would be a paper by Dr. McCone on a case of a child born without an anus and sigmoid flexure, and an operation on it.

Under the head of unfinished business, the matter of the resignations of Drs. Atkins and Ollino came up for action. The **Secretary** stated that he had received again a letter from them stating that they were to go out of the city to remain permanently, and asked that their resignations be therefore accepted.

Dr. Kuhlman moved that their resignations be accepted. This was carried.

The **Secretary** also stated that Dr. Tennison Deane had fulfilled his obligations to the Society in the way of back dues and that the acceptance of his resignation was now in order. On motion, it was accepted.

There being no further business, the Society adjourned.

A. P. **Woodward**, M. D.,
Recording Secretary.

The result of the use of serum treatment for diphtheria at the Emperor and Empress Frederick Hospital for Children has been to reduce the mortality from 37.63 per cent in 1891 to 11.2 per cent in 1895.

Licentiates of the California State Board of Examiners.

At a meeting of the Board of Examiners of the Medical Society of the State of California, held May 14, 1896, the following were granted certificates to practice medicine and surgery in this State:

BORGHETTI, E. P., Oakland, Univ. of Padua, Italy, Nov. 30, 1891.

BREED, FREDERICK L., San Diego; Med. Dept. State Univ., Iowa, March 4, 1885.

BROWNLEE, CHAS. Y., San Jose; Med. Dept. Tulane Univ , La., April 1, 1890.

BURTON, JOHN, Pomona; Jefferson Med. Coll., Pa., March 7, 1867.

CARLETON, CHARLES H., Los Angeles; Med. Dept. Univ. City N. Y., March 6, 1886.

DITTENHOEFER, FILLIE, San Francisco; Med. Dept. Univ. of Oregon, April 1, 1896.

FLINT, WM. H., Montecito; Bellevue Hosp. Med. Coll., N. Y., March 1, 1877.

GOFF, HENRY N., San Diego; McGill Univ., Montreal, Canada, April 4, 1893.

GRIFFIN, ALONZO P., Forbestown; Med. Dept. Univ. Tenn., Nashville, Feb. 24, 1891.

HENRY, LEROY, Kirkwood; Med. Coll. of Indiana, March 30, 1893.

KEITH, JAS. B., San Francisco; Med. Dept. City of N. Y., May 1, 1894.

LATHAM, EDWARD H., San Anselmo; Miami Med. Coll., Ohio, March 5, 1884.

LEIB, THOS. N., San Francisco; Med. Dept. Univ. of Penn., March 15, 1878.

LITVIN, ABRAHAM, New York; Bellevue Hosp. Med. Coll., N. Y., March 23, 1896.

MACKINNON, J. A., San Diego; Trinity Univ., Toronto, Canada, May 19, 1880.

MACOMBER, E. K., San Jose; Med. Dept. Univ. Denver, Col., April 16, 1896.

MCCANN, DANIEL B., Great Falls, Mont., Rush Med. Coll., Ill., March 25, 1890.

MCLEOD, JOHN A., Brooklyn, N. Y.; Bellevue Hosp. Med. Coll., N. Y., March 11, 1889.

NORGREN, CARL L., San Francisco; Royal Frederick Univ., Norway, Dec. 21, 1886.

PENA, JOSEPH M., San Francisco; Medico-Chirurgical Coll., Pa., April 11, 1894.

SCHICK, GOTTLIEB, San Jose; Coll. Phys. and Surg., Ill., Feb. 21, 1887.

SHURTLEFF, FRED. C., Los Angeles; Long Island Coll. Hosp., N. Y., March 12, 1891.

WAGNER, JAMES H., Selma; Med. Dept. Vanderbilt Univ., Tenn., March 31, 1896.

At a meeting of the Board of Examiners of the Medical Society of the State of California held June 2, 1896, the following were granted certificates to practice in this State:

CLINCH, J. H. McI., Portland, O.; Med. Dept. Univ., Oregon, April 1, 1896.

CORBIN, FRANCIS E., Los Angeles; Detroit Med. Coll., Mich., June 29, 1870.

COWEN, EDWARD JAMES, Fullerton; Trinity Coll., Dublin, Ire., M. B., March 5, 1878; Trinity Coll., Dublin, Ire., B. Ch., July 4, 1878.

EWING, BENJ. HAWK, San Francisco; Med. Coll. of Ohio, April 9, 1866.
HALE, V. G., Milpitas; Jefferson Med. College, Pa., April 2, 1883.
JACKSON, H. NELSON, Burlington, Vt., Med. Dept. Univ. of Vermont, July 17, 1893.
KELLOGG, P. S., Honolulu, H. I.; Detroit Med. Coll., Mich., May 3, 1895.
KETCHAN, LEANDER Y., San Diego; Med. Dept. Univ. Vermont, July 1, 1880.
MASFORROLL, MANUEL, San Francisco; Harvard Med. Coll., Mass., June 28, 1876.
MILLARD, CAROLINE A. HOLLISTER, San Francisco; Med. Dept. Univ. Mich., March 24, 1875.
PRATT, HERBERT E., National City; Chicago Med. Coll., Ill., March 29, 1887.
SULLIVAN, ELLA WARREN, San Diego; Cincinnati Coll. Med. and Surg., Ohio, April 2, 1889.
TSUMAKI, MASUTARO; San Francisco; Med. Examining Board, Tokio, Japan, May 1, 1883.
WALKER, ARCHIBALD DUNN, Riverside; Queen's Univ., Canada, April 23, 1888.
GALLAGHER, JOHN JOSEPH, San Francisco; Cooper Med. Coll., Cal., Dec. 5, 1895.
WENTWORTH, WM. H., San Francisco; Cooper Med. Coll., Cal., Dec. 5, 1895.
ALLEN, CLIFFORD EMMET, Bangor; Med. Dept. Univ. Cal., May 13, 1895.
BLUM, SANFORD, San Francisco; " " " "
COE, LEONARD HAYES, San Francisco; " " " "
MAHER, THOMAS DAVIS, San Francisco; " " " "
MCLAUGHLIN, ALFRED, San Francisco; " " " "
MUSCOTT, BRAYTON, San Francisco; " " " "
O'BRIEN, JOHN T., San Francisco; " " " "
O'MALLEY, WM. HENRY INGRAM, S. F.; " " " "
STONE, M. VOORHEES, San Francisco; " " " "
STOVER, WM. M., San Francisco; " " " "
THORPE, LEWIS SANBORN, Los Angeles; " " " "
Refused—A. Rupin, San Diego, insufficient credentials. J. C. Fleming, Fruitvale, college not recognized.

CHAS. C. WADSWORTH, M. D., Secretary,
518 Sutter Street, San Francisco, Cal.

DR. W. E. MOSLEY, of Baltimore, has recently added another instance to the short list of recorded cases of twin pregnancy, where one fœtus was developed within the uterine cavity and the other "representing some form of extrauterine gestation.—*Chicago Clinical Review.*

CAUSE OF BLINDNESS.—It is said that about one-quarter of the inmates of the Batavia (N. Y.) School for the Blind lost their sight through purulent ophthalmia.—*American Medico-Surgical Journal.*

Selections.

Experimental Reports with Gude's Peptomangan.

By J. S. Perekhan, M. D.,
Attending Gynecologist, Lakeside Hospital, Chicago.

The numerous clinical reports published about the favorable results obtained with the use of Gude's peptomangan in anæmia, chlorosis and all cases where there is diminution of the red-blood cells, and amount of hemoglobin, induced me to institute a course of investigations in order to determine the effect produced upon the blood. Thoma-Zeiss hemo-cytometer and Gower's hemoglobinometer were used for counting the blood cells and estimating the amount of hemoglobin. The following reports are from a series of cases experimented upon:

Case 1. D. B., aged 28, married, of a consumptive family, normal weight 130 pounds. About January, 1895, had a three months' miscarriage, followed by menorrhagia and metrorrhagia for a period of over five months, when the uterus was curetted. Her general condition, however, did not seem to improve; gradually she became anæmic, lost flesh, had some cough and expectoration which, on repeated examination, failed to contain any bacilli. She also had occasional night sweats, headaches and constipation.

January 28, 1896. Patient's blood was examined with the following results: Red blood corpuscles, 2,610,000 to the c. m., hemoglobin, 40 per cent. She was placed on Gude's peptomangan ʒj. after meals and gradually increased to ʒij. t. i. d. Results: February 18. Corpuscles, 2,900,000; hemoglobin, 46 per cent. March 10. Corpuscles, 3,310,000; hemoglobin, 67 per cent. April 1. Corpuscles, 4,200,000; hemoglobin, 88 per cent.

The general condition of the patient after sixty-three days of treatment has entirely changed. No cough, night sweats or headaches; appetite good, sleep and menstruation normal. She is more than pleased with the treatment and considers herself cured.

Case 2. W. H., aged 19, of a good family history. About a year ago began to lose flesh, shortly after swelling and tenderness of the dorsum of both feet, and the lower end of the left tibia was noticed. A diagnosis of tubercular osteritis being made, patient was placed on tonics and ordered to rest the parts by keeping off his feet. He did not improve, however, but, on the contrary, abscesses formed and the necrosed bones had to be removed. On leaving the hospital his general condition was very poor; had lost considerable flesh, appetite poor, face and lips exceedingly pale, a few enlarged lymphatic glands were to be felt in the neck. On examination his blood at that time, January 20, 1896, contained corpuscles, 2,700,000 to the c. m., while the amount of hemoglobin was only 47 per cent. Patient was given Gude's peptomangan ʒj, t. i. d., with one drop of beechwood creosote to the dose. The latter had to be discontinued for a few days on two occasions on account of disturbed digestion. The improvement in this case was very rapid and very decided. Complexion shows marked change for the better, he has lost his pallor and regained a healthy color, gained flesh and strength, the enlarged lymphatic glands have diminished in size. Examination of blood was: February 15. Corpuscles, 3,510,000; hemoglobin, 64 per cent. March 6. Corpuscles, 4,000,000; hemoglobin, 80 per cent.

Patient decided on a sea voyage and he was advised to continue the treatment for a month longer.

CASE 3. Miss M., aged 21; normal weight 109 pounds. Menstruation at 16 and was always regular up till January, 1895, when she contracted a bad cold, to which she attributes the beginning of her present sickness. From January to May her menstruation was irregular and it has been absent for the last eleven months. She was treated in the south for consumption for nearly a year without any improvement.

Patient came to this city to visit her sister, and I was consulted. Her condition at that time was as follows: Face and mucous membranes very pale, slender, slightly below the average height, pulse weak, of 120 beats per minute, temperature 101°. Appetite poor, night sweats, bowels irregular, complains of dyspnea on the slightest exertion. Cough severe, expectoration muco-purulent. Physical examination showed consolidation of upper lobe of left lung, and evidences of disease in apex of right lung. Heart normal, with the exception of anæmic murmur heard over the pericardial region. Urine normal, of light sp. gr. Sputum contained larger number of bacilli.

She was given peptomangan ʒj. doses after meals, with one drop of creosote. Number of corpuscles to the c. m. when treatment began was 2,815,000. Hemoglobin was down to nearly 45 per cent.

After continuing the same treatment for twenty-five days, condition of the patient has improved exceedingly. She has gained three and one-half pounds in weight, appetite unusually good, night sweats have entirely ceased, and the cough and amount of expectoration is much less. Blood count: corpuscles have increased to 3,600,000, hemoglobin 60 per cent. Sputum, however, still contain bacilli, and the patient at the present time is undergoing additional treatment for the tuberculosis.

To Dr. E. J. Doering I am indebted for the report of the following case:

CASE 4. Miss H. K., age 21; public school teacher, very anæmic in appearance, anæmic heart murmur, lips pale, body hard, well nourished. Blood showed February 1, 1896, hemoglobin 65 per cent and 2,900,000 corpuscles to the c. m. March 29, 1896, hemoglobin had increased to 90 per cent and corpuscles to 4,200,000 to the c. m. No other remedy administered except Gude's peptomangan and a milk, egg and beefjuice diet.

Dr. H. D. Peterson reports the following case: Miss Clara C., age 22, single; first menstruated at 16, has been ill for two years; has varied symptoms, prominent among which are pale face and mucous membranes, loss of appetite, general debility, loss of flesh, now weighs about 100 pounds, normal weight 120 to 130.

Blood count when she comes under observation was corpuscles 3,100,000 to the c. m., and after twenty days treatment with Gude's peptomangan the corpuscles han increased to 3,680,000 c. m.

Other cases with similiar favorable results could be reported, but suffice to say that in Gude's peptomangan we have a valuable and trustworthy general tonic and reconstructive article, and it is well deserving of a more extended trial at the hands of the practitioner.—*Chicago Medical Recorder*, May, 1896.

Mexican Criticism of Pullman Cars.

Forcible indeed are the denunciations of sleeping cars in the *Gaceta Médica de Mexico* for May. The suffocating heat, the lack of ventilation and illumination, the unsanitary closets, are mentioned as if our Pullman sleepers, of which we Americans have been so proud, were utterly and entirely behind the times. It says that at least the improvements in new modern hotels should be introduced into them, air supplied incessantly and gradually, electric lights and strict sanitary arragements in the closets, drinking water, etc. The precautions to be taken to prevent infection from disease are discussed also, and a radical reformation urged in many directions under the advice of experts.—*The Journal.*

The Next Advance in Anesthesia.

Sir Benjamin Richardson points the way to what he terms the next great advance in anesthesia, although he is not yet able to say the exact form which this advance will take. He objects to all anesthetics which contain chlorine, which he thinks has always been the danger in regard to chloroform. What is wanted, he says, is an agent which can be easily applied and shall be capable of being so applied as to induce insensibility to pain with or without destruction of consciousness. To a certain extent this object is attained by methylic ether. It has the curious and most desirable faculty of destroying sensibility before it destroys consciousness, and recovery from it is exceedingly rapid. It may also, says Sir Benjamin Richardson, be considered the safest of anesthetics. Unfortunately it is a gas and is troublesome to administer. He thinks, however, that we may look hopefully for a method in which, by means of a single agent, we shall be able at will to suspend common sensation alone or to exalt the process into suspension of consciousness. When this object is attained with safety and facility the science of anesthesia may be considered as perfected.—*Chicago Clinical Review.*

The Konig-Maas Method of Restoring Persons Apparently Dead From Chloroform.

The operator, standing on the left side of the patient and facing him, places the ball of the thumb of the opened right hand upon the patient's chest, at a point between the apex beat and the sternum. He then repeatedly presses in the thoracic wall with a quick, strong movement, at the rate of thirty to one hundred and twenty times to the minute. There can be no doubt that the efficacy of the Konig-Maas method lies in its direct action on the heart, restoring not the respiration only, but the circulation also. If on a fresh cadaver the precordium be quickly and forcibly compressed it is easy to detect a distinct pulse wave in the carotid arteries; and the pupils will be found to contract as the blood fills the capillaries of the iris.—LEEDHAM-GREEN, *Birmingham Med. Rev.*, 1895, xxxvii, 84.

Literary Department.

Under the charge of W. F. McNUTT, M.D., M.R.C.S.Edin., etc.
Professor Principles and Practice of Medicine in the Medical Department
University of California, etc.

THE THREE ETHICAL CODES. That of the American Medical Association; its Constitution, By-laws, Amendments, Etc. That of the American Institute of Homœopathy and that of the National Eclectic Medical Society. Limp cloth, round corners, 55 pages, postpaid 50 cents; the *Illustrated Medical Journal Co.*, Publishers, Detroit, Mich. For sale by the Book Department of the Emporium, Market St., San Francisco.

By comparing the Code of the Homœopathic Society with that of the American Medical Association, it will be found that several sections of the former are similar to the latter's code. In fact we can find nothing particularly objectionable in the Homœopathic code. We very much suspect that if the new code men had remained in the American Medical Association as they should have done, and continued their agitation for consultations with homœopathic physicians, such an amendment might have by this time been accepted by the Association. Hundreds of physicians who refuse consultations with homœopaths do so in obedience to their code of ethics. They are ready and willing to meet homœopathic physicians in consultation when the majority of the members of the American Medical Association conclude that it is for the best interests of the profession. As for the Eclectic Code, it is certainly the soul of wit: that is, brevity is the soul of wit. It consists of three sentences.

VOICE BUILDING AND TONE PLACING. By H. HOLBROOK CURTIS, Ph. B., M. D., Fellow of the New York Academy of Medicine, Member of the County Medical Society, Member of the American Medical Association, Fellow of the American Laryngological, Rhinological and Otological Society, Membre Correspondant de la Société Francaise d'Otologie, de Larngologie et de Rhinologie, Member of the British Laryngological, Rhinological and Otological Association, etc. New York: D. Appleton & Co. For sale by the Book Department of the Emporium, Market St., San Francisco.

The subject of which this little book treats has long been and is yet in a state of great confusion. There is scarcely a household without its singer and there is scarcely a singer without throat difficulties. Yet the lines pursued by the master of song and those followed by the throat specialist have been divergent and discordant instead of being parallel and harmonious. The throat specialist has not studied voice production and hence has not appreciated the singer's peculiar difficulties; nor has the vocal teacher studied thoroughly the anatomy and physiology of the larynx. The investigation of him who teaches singing and of him who treats the singer's throat should, to a wide extent, overlap each other. Dr. Curtis is the first man in America and among the first in the world who has worked up this question from the double standpoint. His book is surprisingly free from errors. It embodies the results of close observation and enormous experience in treating and advising the most gifted and intelligent artists of the world. It therefore commends itself strongly to both the throat} specialist and the teacher. Each will find it a safe guide in many a perplexing difficulty.

D. A. H.

TWENTIETH CENTURY PRACTICE. An International Encyclopædia of modern medical science by the leading authorities of Europe and America, In twenty volumes. Volume V. Diseases of the Skin, by American and European contributors. Edited by THOS. L. STEDMAN, M. D. New York: William Wood & Co. For sale by the Book Department of the Emporium, Market St., San Francisco.

We have already had the pleasure of noticing five volumes of this great work; this makes the sixth. Volume 6 was issued a few months ago This fifth volume consists of 905 pages devoted entirely to diseases of the skin. There are eleven contributors to the volume, seven of them Americans, two French, one English and one Viennese. They are all well known and well qualified for their work. All are teachers of the diseases of the skin in medical colleges or physicians to dermatological hospitals; and Kaposi, Vienna; Crocker, London; Bulkley, New York; Hyde, Chicago; Van Harlinger, Philadelphia, are authors of excellent and popular text-books on dermatology. The general practitioner cannot procure a better up-to-date work on diseases of the skin than this. The publishers have done their part of the work well. The other five volumes have all been excellent, this one not only sustains, but rather adds to, the reputation of the others.

QUIZ COMPENDS No. 14. A compend of the Diseases of Children, especially adapted for the use of Medical Students, by MARUCE P. HATFIELD, A. M., M. D., Professor of Diseases of Children, N. W. U. Medical School, Physician to Wesley Hospital; Home for Crippled Children, Chicago Orphan Asylum, Etc. Second edition thoroughly revised. With a colored plate. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut St. 1896. For sale by the Book Department of the Emporium, Market St., San Francisco.

Students will find this an excellent quiz, one of the best of the series. To the general practitioner it will prove a useful epitome of diseases of children.

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Original Articles.

SOME FACTS OF SPECIAL INTEREST TO CALIFORNIA REGARDING LEPROSY AND JAPANESE IN HAWAII.

By ALBERT S. ASHMEAD, M. D., New York, late Foreign Medical Director, Tokio Hospital, Japan.

DR. M. GOTO, the noted Japanese leprologist, who went, at the invitation of the Hawaiian Government, to Hawaii in March, 1893, and whose engagement at the hospital at Kalawao terminated April, 1895, in a letter to me, dated July 8, 1894, says:

"From February 8, 1885, to 1894, there came to these islands 21,881 Japanese men and 5,191 Japanese women. At present there are 20,672 Japanese here. Of this number, five men contracted leprosy here, and, besides these five, four other leper men and two suspects were sent back to Japan. The Japanese in Hawaii are very little subject to leprosy. Although it is said that the cause of leprosy is fish eating, I do not discover any such reason. It is true that the natives of Hawaii like to eat fish very much, also Japanese like fish; yet a good proof that leprosy does not depend on fish diet is found in the fact that the Japanese in Hawaii are so little subject to it."

DR. LUIS F. ALVAREZ, bacteriologist to the Hawaiian Board of Health, writes me, under date Honolulu, April 28th, 1896, as follows: "There are no Japanese lepers in the leper settlements at Molokai, nor at the Kalihi receiving station. As the Japanese laborers are examined in Japan before embarking, and again in Honolulu after landing, we do not expect to find lepers among them."

The following extracts are from the last report of the president of the Board of Health for the twenty-one (21) months ending December 31st, 1895 (Honolulu, 1896), which Dr. Alvarez kindly sent me:

"The inspection of the public markets of Honolulu has been more strictly enforced during this period than heretofore. All fresh fish are required to be brought to the market, and inspected before sale by an inspector appointed by the board. This requirement is especially important in view of the fact that so many Hawaiians eat fish without being cooked. The rule was established about two years ago, when Chinese fish peddlers began to peddle fish from house to house, etc.

" Leprosy, I think, is decidedly on the decline in this district of Honolulu, as it surely is throughout the whole group."—Dr. Henry W. Howard, Government Physician for Honolulu.

" As to increase or decrease of leprosy I have been here too short a term for my opinion to be of any value."—Dr. E. S. Goodhue, Government Physician, Koloa, Kauai.

" This disease is on the decrease."—Dr. Walters, Government Physician, Lihue, Kauai.

" The number of the lepers in the district greatly diminished."—Dr. John Weddick, Government Physician, Kawaiahau and Hanalei, Island of Kauai.

" In regard to leprosy, whether on the increase or diminution I cannot surely say."—Dr. Peterson, Government Physician, Honouliuli and Waianae.

" None of the school children in this district showed any signs of leprosy. And as they range from 5 years to 18 years of age, and are some 800 in number, I think I am justified in considering the disease on the decrease. I know of no positive case of leprosy in this district at present."—Dr. Chas. Davison, Government Physician, Lahaina, Maui.

" Eighteen leper suspects, 12 of whom were apprehended and sent to the receiving station at Honolulu: Chinese, 1; half Chinese and half Hawaiian, 1; half German and half Hawaiian, 1; Hawaiians, 9. Total 12. They came from all parts of the district; from near the seashore, from high up on the mountain slopes, from the woods and from the sunny hills of Kula; so that the disease cannot be said to be endemic to any one locality. All but two were under 40 years of age; and not more than one from any one family or household. Salicylate of soda gave best results in treatment. I cannot say whether leprosy has increased or diminished."—Dr. Aiken, Government Physician, Makawao, Maui.

" The apprehension of lepers in this district is an extremely difficult matter. As a rule on reaching a house where I have heard there is a leper, I find the house empty, the inmates having fled to the mountains, or are in hiding. The native police do not seem to understand the importance of apprehending lepers. As a remedy for this, I would like to make a suggestion, viz: that a reward (any small sum) be offered for the apprehension of such lepers, and payable to the policeman making the arrest." —DR. MCGETTIGAN, Government Physician, Hana, Maui.

"Leprosy, though little seen or heard of in the district, has not shown in the last two years the decrease that was to be hoped for. But inasmuch as each individual case has to be ferreted out and brought from concealment, often in a state of full development, this is not to be wondered at. If in some way a strict registration of our entire population could be arrived at, and every soul be accounted for at intervals of time not too far apart, we might hope to gain one more step towards realizing in strict segregation the ideal protection aimed at."—DR. BOND, Government Physician, Kohala, Hawaii.

"Leprosy has about disappeared from this vicinity. I have I think, sent but four to Honolulu during the past two years, and I know of but one suspect now remaining, and his case is so uncertain that after having been under my supervision for a number of years, I have my doubts as to there being any good reason for suspecting him longer."—DR. THOMPSON, Government Physician, North Hilo, Hawaii.

'Leprosy is certainly on the decrease in Puna district."—DR. LE BLOND, Government Physician, Puna, Hawaii.

"As to leprosy I cannot say whether it is on the increase or the reverse. There has been a great number of lepers sent away from North and South Kona during the past few years, and it seems to me that new cases are just about as prevalent to-day as they were three or four years ago. There are many things which could be done that would go far towards lessening the chances of contagion. In almost all cases where lepers are sent away from Kona, their effects, such as mats, clothing, etc., are given to grieving friends and relatives left behind. These of course are great sources of contagion."—DR. LINDLEY, Government Physician, Kaawaloa, Hawaii.

"There has, however, been no falling off in the number of lepers seeking medical advice; on the contrary, the daily sick list has steadily increased, showing that the bulk of the lepers are more disposed than formerly to profit by foreign medicine. The average daily number of lepers requiring medical treatment at the dispensaries or at their home is, at present, thirty-six. This is somewhat below the usual number, attributable to the unusually healthy season, and the corresponding infrequency of cases of leprous fever.

"Hot-water bathing at the six bathhouses erected by the Board, at many private houses, and at the Goto Hospital has been carried on regularly, with the exception of a short interval when the cholera visited Honolulu. The average daily number of bathers at the six small houses has been fifty-five. In conjunction with the bathing at the small houses, which comprises the ordinary hot water bath, the carbolic acid bath, the permanganate of potash bath, and the sulphuretted potash bath, a regular course of treatment has been pursued. The lines of specific treatment that have been followed are: 1. Arsenic. 2. Salicylate of soda or salol. 3. Creosote. They have all been of more or less benefit; Fowler's solution in large doses taking the lead. In symptomatic treatment salicylate of soda is most useful, particularly in leprous fever and neuroses.

"Acetanilid and quinine are continually enquired for, on account of pains and fever, whilst the ordinary tonic and supporting treatment includes iron, hoangnan, and the emulsion of cod liver oil. Several lepers, after a term of regular bathing and a course of one or another of these specific remedies, have gained strength and recovered their health to such a degree, that they have thought it unnecessary to continue the treatment regularly, but take an occasional bath, and a short course of their particular medicine from time to time.

"In the treatment of leprous ulcers, ichthyol, as a 50 per cent ointment, is very useful; and lately I have tried dermatol with considerable success.

"GOTO TREATMENT.

"During the period, commencing May, 1893, that the Goto treatment has been carried on, bathing has been regular at the Goto Hospital, Bishop Home, and at private houses, and recently at the Boys' Home. But for a long time the majority of the patients have confined themselves to the use of the bathing medicine. The result of bathing has, in many instances, been satisfactory, but in many cases but little benefit has been derived from it.

"Of those undergoing the Goto treatment, seventeen (17) lepers have died."—Dr. Rich'd Oliver, Resident Physician, Leper Settlement, Kalawao, Molokai.

"The few local Japanese afford excellent examples to the Hawaiians of personal cleanliness, the evening warm bath being superior to blood purifying medicines and Kahunas (native physicians) for keeping in good health. Many of the Hawaiians are waking up to the fact that leprosy is not a supernatural disease, that it affects them more than the foreigners, is incurable, and a miserable pittance of life awaits those affected with the disease. The various vague causes that were, in the Hawaiian mind, responsible for leprosy are slowly giving way to more rational ideas; the present status of leprosy highly favors this. The Hawaiian is beginning to learn that intimate contact with a leper is not devoid of risk.

"The occupation of the great bulk of the adult population is that of fishing in the sea and fish ponds; and, as the Hawaiians are well informed and experts at this work, their enthusiasm leads them to remain for hours in the water, with the result, sooner or later, of laying them up with rheumatism, fever, asthma, and bronchitis. To avoid these ailments, some Hawaiians listen to the physician's advice, bathe in hot water, and use friction to the skin, to remove the bad effects of long exposure to cold, and counteract the tendency to internal congestions. The Hawaiians are passionately fond of water, but they use no skin friction afterwards; hence are very liable to skin diseases, especially parasitic affections, such as tinea, versicolor, or kane. This absence of skin friction, together with the highly active condition of the sudiparous and sebaceous glands, makes their skin troubles sometimes obstinate to deal with and difficult to eradicate.

"STATUS OF LEPROSY.

"Leprosy has rapidly declined, and the chief factor in causing its diminution is undoubtedly 'active segregation.'

"There remains only three cases in the whole district, and these are suspects. They have been examined on several occasions by the eminent physicians who compose the Examining Board, and still pronounced suspects, which is a proof of the mildness of their disease. The condition of the disease in these three suspects illustrates mild type, slow progress, or no progress visible, the disease being purely local. All the three have the atrophied and palsied hand peculiar to nerve leprosy. The leprosy is quiescent, which must indicate a less severe type to what prevailed some years ago. Nodular leprosy used to be the most prevalent form; it is the primary form, it rarely delays its course, but progresses slowly to a fatal termination.

"Nerve leprosy is a modified or secondary form, differs materially in degree from nodular leprosy, is less active, and hence less infective. It very seldom happens that nodular leprosy aborts; not so nerve leprosy, which not infrequently aborts; the atrophied and palsied hands, the sole lesion caused by the disease in many cases, remaining in a stationary condition for years. Ten years ago I lived at Kalawao. The segregation of lepers was not very active, those that were segregated had the disease of long standing; within five years the majority were dead.

"The lepers at the settlement in 1895 present this difference: They have been segregated in the early stages, the disease is mild, they will probably live ten years or more, hence no great diminution in the population at the settlement will be speedily apparent.

"It has been said 'there is now just as much leprosy as ever.' I decline to accept this statement, in the face of the fact that, in the past, leprosy has been an unknown quantity; at the present day, leprosy is a fairly well-known quantity; furthermore, there is a material difference in degree of severity. At the present date, the bulk of the cases segregated are mild, whereas ten years ago, severe cases comprised the bulk. If segregation had been as effective then as it is now, the leper population would have been near 2,000. Ten years ago, mild cases were left at large in the population, and were an unknown quantity, whereas, to-day, the most rigid segregation can only produce mild cases; severe cases are to be found but rarely at the present day. The first twenty years of vacillating segregation produced 3,076 lepers. The last nine years of more active segregation has gathered up 1,932."—A. Mowritz, M. D., Government Physician, Mapulehu, Molokai.

TABLE SHOWING THE NUMBER OF LEPERS AT THE SETTLEMENT OF MOLOKAI AT THE END OF EACH YEAR.

Year.	Number.	Year.	Number.
1866	105	1881	706
1867	143	1882	649
1868	228	1883	785
1869	284	1884	717
1870	279	1885	655
1871	402	1886	500
1872	439	1887	698
1873	749	1888	1035
1874	671	1889	1187
1875	706	1890	1213
1876	677	1891	1142
1877	710	1892	1095
1878	802	1893	1155
1879	717	1894	1124
1880	606	1895	1087

Extract from a letter of Dr. Luis F. Alvarez to Dr. Albert S. Ashmead, dated Baltimore, March 13th, 1896:

"The total number of lepers in the settlement at Molokai is now 1,250. The number of lepers at large, *i. e.*, not segregated, is unknown, but they may reach three or four hundred. I have not the last report of the Board of Health here, so I cannot tell you how many Japanese there are in the settlement. Last May, when I was there, I saw two or three. The total number of Japs in Hawaii must be about 25,000."

From all of which we may conclude that the Japanese immigrant has not carried leprosy to Hawaii.

Chronic Pharyngitis.

℞	Iodi	grs. vj.
	Potass iodid	grs. xij.
	Mentholis.	
	Glycerine	q. s. ad aa ʒi.

Apply two or three times daily.

Lœffler's Solution.

℞	Alcohol	60 parts.
	Toluol	37 parts.
	Liq. ferri perchloride	4 parts.

Swab the affected parts with this every two or four hours.

UTILITY OF THE GALVANO-CAUTERY LOOP IN THE REMOVAL OF NEOPLASMS FROM THE EPIGLOTTIS AND ADJACENT STRUCTURES.

By M. C. O'TOOLE, M. D.

(Read before the California State Medical Society, Los Angeles, April 23.)

In some of the current literature on diseases of the throat may be found suggestions and advice which, to say the least, are misleading and indefinite, and which, if carried out, would, in some instances, at least, prove absolutely injurious.

Laryngoscopy being comparatively a recently discovered art, presents at the present time a vast field for the exercise of study and observation. But if there is danger in the possession of a little knowledge, then a little knowledge of laryngoscopy may not be entirely void of risk to its possessor and probably to others as well.

To become an expert laryngoscopist requires, amongst other qualities, normal acuity of vision and a high degree of manual dexterity.

Given a series of fifty cases of intra-laryngeal diseases as they present themselves to the practitioner and another fifty cases of eye diseases, including those of the anterior third, and those having experience will, I think, admit that, all things considered, accurate diagnosis in diseases of the eye can be accomplished in less time and with less trouble to the physician than will be required to arrive at equally satisfactory conclusions regarding diseases of the throat.

It has been stated that the general practitioner looks with less favor upon throat specialists than he does upon workers in other departments of medicine. If this be true, it is probably the fault of throat specialists themselves.

I have knowledge of a so-called laryngoscopist who is in practice to-day, and who claims as his rightful inheritance the treatment of every malady which involves any organ situated above the diaphragm. Every physician should possess and know how to use the head and throat mirrors, but the man to whom is intrusted the care of the eye, ear, nose and throat, and who will, when opportunity offers, take every other case as well, should be compelled to act honestly.

The region lying between the raphe of the tongue and anterior face of the epiglottis, is known as the epiglottidean fossæ, and in normal conditions contains lymphoid or adenoid tissue and follicles which are identical in structure with the solitary follicles of the intestines. Within the past few years, the structures contained in these fossæ have been named the lingual, or fourth tonsil, and recent investigation has shown that hypertrophy and engorgement of this tonsil is of much more frequent occurrence than hitherto supposed.

In aggravated cases the hypertrophied contents of these fossæ will displace the epiglottis, forcing it backward, and may occasionally ascend to a level with its free border. As inspection and effective treatment can be accomplished only under the light of the laryngoscope it is conceivable how futile must be all efforts of treatment when not conducted by the aid of this appliance. In pre-laryngoscopic times the continuous irritation caused by the presence of this abnormality in the throat was attributed to the nervous influences, to the globus hystericus, a vivid imagination, etc., and change of air, valerian, strychnia, iron, and the salicylates formed the routine treatment.

The late Sir Andrew Clark, when writing of his experience of what he called "The Nervous Cough of Adolescence," gives, unknowingly, an accurate description of the conditions and symptoms which proclaim the presence of an engorged lingual tonsil.

It is worthy of observation that even in comparatively recent text-books on diseases of the throat scarcely any mention is made of the fourth tonsil. Solis Cohen, in the second edition of his book, gives illustrations of the lingual sinuses and states that they are frequently ulcerated, but recommends no method of treatment.

Sajous' book, 1886, contains no reference to this structure. McBride, in 1887, contributed an article to the *Edinburgh Medical Journal*, "The Adenoid Tissue at the Base of the Tongue as a Factor of Throat Symptoms," and the vicious treatment there recommended (the galvano-cautery, nitrate of silver and chromic acid), has since been echoed by innumerable careless writers.

Lennox Browne, of London, who has given much attention to varix of the base of the tongue and hypertrophy of the lingual tonsil says in the latest edition of his book, "Diseases of the Throat," 1893, "lunar caustic is an inefficient and chromic acid, a dangerous application in this situation."

Walter Fowler and others have reported cases in which the last remedy so employed passed into the stomach and caused collapse, and other toxæmic effects.

Beverly Robinson, the author of an excellent book, "Nasal Catarrh, and Allied Diseases," when writing of the subject in question, says: "The great objection, however, to the use of the cautery in this region is the risk of burning the epiglottis, and particularly its free border. Unless the patient is phlegmatic and obedient, and holds himself very steadily, we may inadvertently produce an ugly sore, which will give any amount of trouble before it heals."

Excision of the tonsil, with a specially devised knife, or with Chappell's guillotine, has been recommended highly by a few prominent throat specialists, but thus far has not commanded general favor. The site of the disease makes it awkward for operation with the guillotine, unless it be imperatively required; and the risk from annoying bleeding, or some other accident following excision, is not, in my judgment, as small as has been affirmed.

These then, the most recent trustworthy opinions on the subject, go to show that, for the removal or destruction of an engorged lingual tonsil, excision, chromic or other acids, and the galvano-cautery, as usually applied, are to be condemned as dangerous, while nitrate of silver or iodine, in any form, are useless.

I will now ask permission briefly to report a case which will serve to describe the symptoms and conditions which accompany the chronic form of this disease, and will also demonstrate the method and appliances with which I have frequently and effectively removed the hypertrophied fourth tonsil.

An unmarried lady, 22 years of age, a native of Massachusetts, had suffered with throat disease for about two years, and came to California by the advice of her physician, who feared pulmonary complications. A thorough examination of the chest failed to detect evidences of disease; patient had lost 15 pounds in weight during the year, before coming under my observation; weight at that time being 125 pounds; a continuous, dry, distressing cough was aggravated by swallowing, and a sense of suffocation was induced by any attempt to assume the recumbent position; the throat was too irritable to admit of digital examination; some isolated patches of hypertrophied follicles were seen on the pharyngeal walls; the faucial and pharyngeal tonsils were free from pathological changes.

The laryngoscope revealed the presence of an irregularly shaped mass, about the size of a large hazel nut, and lying between the base of the tongue and the epiglottis—the free border of the latter being forced slightly backward—broad of base and sessile in form, the surface being covered with a greyish colored encrustation; this was found to consist of phosphate of lime, probable indications of commencing calcification. Treatment consisted, first, of severing connections which existed between the pathological formations and adjacent parts; these curved, probe pointed bistouries, being well suited for that purpose. The cautery loop (cold, of course) was passed over the mass, and pressed well downward, the points of what may be called an "elevator" was then pressed into the tonsil, and the instrument given to an assistant, who, by using the patient's teeth as a fulcrum, and lowering the handle, lifted the growth from its sunken position, thus enabling the operator to include the entire structure within the loop, when the wire, at a dull, red heat, was carried slowly through the base of the mass.

The operation was absolutely painless, and, of course, free from hemorrhage. It may be stated that the patient, like many others under similar circumstances, could not control her tongue during the operation.

About seventeen years ago, I contributed to the *New York Medical Record* a short article descriptive of a method the exercise of which enables the operator to dispense with any assistance from the patient during laryngoscopic operations.

The article being a short one, and germane to this subject, I will read it, if the be no objection.

CONTROL OF PATIENT'S TONGUE DURING LARYNGOSCOPIC OPERATIONS.

To the Editor of the Medical Record.—Dear sir: During the past three (3) years, and while engaged in the throat department of an extensive clinic, the writer has dispensed with any assistance from patients in holding or controlling the tongue during laryngoscopic operations.

The manœuvre, as practiced by the writer, is as follows: "The throat mirror, heated, is held in the right hand, the tongue is grasped with and between the ring and little fingers of the left hand, the mirror is then placed in position, and held between the thumb, index, and middle fingers of the same hand, precisely as a cataract knife is held during operation. As there is naturally little strength of grasp or unity of action between the ring and little fingers, some exercise and practice of these digits will be required, so as to enable them to hold the tongue."

San Francisco, August 12, 1879.

This manœuvre has been practiced by me in all laryngoscopic operations since the time above mentioned. It gives me pleasure to state that Dr. Barkan kindly saw this case with me in consultation two days before operation.

STREET CLEANING AND DISPOSAL OF GARBAGE.

By H. S. ORME, M. D., Los Angeles, Cal.

(Read before the State Sanitary Convention, Los Angeles, April 26, 1896.)

The subject of street cleaning and proper disposal of garbage, etc., cannot attract too much attention, especially are these subject matters important and interesting to those of us who are so fortunate as to live in the large and growing cities and towns of California.

We are all proud of our State, its climate, productions, etc., but to make it more and more appreciated, not only by our own citizens, but by those living in less favored regions who visit us, we must have the reputation, together with that of the best climate in the world, of having the cleanest and most healthful, the most economically and best governed cities and towns of any State in the Union.

Our streets should be put in good repair and kept clean. That they can be kept clean we have no reason to doubt, for the great interest taken in sanitary matters the last few years by not only the members of our own profession, but by the general public, shows that the people are willing to carry out the principles of sanitation if they can be shown the necessity. In this world many persons will only do certain things from necessity when they are forced to by law, or when they see a threatened epidemic and death confronting them.

In the cities and towns of the civilized world it is agreed that some method of removal of refuse, garbage and excreta is imperative in all cases, but the means adopted varies with local conditions, and notions of economy and efficiency. Sewered cities make use of water carriage for all matters which can be dissolved or suspended, while those without such works have to treat all on the same plan. In this paper I propose to deal with such matters as can be hauled from streets and premises.

Some cities contiguous to the sea (New York, for example), collect street sweepings and household refuse and dump them at turn of tide into the lower bay. Others, like New Orleans, transport all refuse, including night soil, in barges below the city and dump it into the river. Some, like San Francisco, send human excreta into the bay through sewers, and other refuse to the dumps. Still others, like St. Louis, Milwaukee, Detroit, Fort Wayne, Indiana, Savannah and Atlanta, Georgia, destroy such matters by fire, including in some cases, night soil and the largest dead animals, within inhabited limits, and without creating a nuisance. All the plans, except the last, are attended with great offence to the senses, and doubtless in many instances, with detriment to the public health.

Various patterns and patents for crematories have been devised. Some, like the Merz Mineral Extractor, or the American Incinerating Company, as at Philadelphia, are designed to save products of value (principally fats from kitchen refuse); but it is found impracticable to avoid objectionable stenches in these operations, besides the apparatus is quite expensive, and the results in many cases would afford scarcely any profit. On the whole, the most satisfactory method is found in the simple and complete destruction by fire of all combustible substances of this class.

The necessary expense of cremation is governed by several varying conditions:

(1) The price of coal, which, unfortunately, is high in California, but perhaps now crude oil can be substituted.

(2) The kind of apparatus, for some furnaces require more fuel than others.

(3) The nature of the matters to be consumed, night soil and large animals requiring most fuel.

(4) Period of continuous fire, the most effective plan being to keep up the fire day and night.

(5) Length of haul.

In California it is especially important to economize the consumption of coal by the best apparatus and continuous firing, but crude oil can and will be used in Los Angeles. In order to avoid long hauling a sufficient number of furnaces should be provided in cities so as to be reached by a haul not exceeding two miles in length.

There is too much diversity in the method of gathering the refuse. In San Francisco householders pay private parties a stipulated amount monthly to haul away the stuff. In Los Angeles, by private contract for three years, which should be five. In some other cities and towns public carts do the work at expense of the corporation. In a few cities the health department does the whole work at public expense, and it is generally agreed that this last plan is by far the most satisfactory and perhaps as cheap as any effective one.

This is the plan adopted at Atlanta, Georgia, which gives complete satisfaction: Every householder pays a tax of $3 per year. All kinds of refuse, including night soil, are burned, and this is done so perfectly that no stench is perceptible. A horse's carcase is completely consumed in one hour and ten minutes. The apparatus there used is the "Dixon Crematory," the same pattern as the one now being erected in Los Angeles, not, however, owned by the city, but by the contractors, who are having it built at a cost of about $10,000. The amount of matter consumed at Atlanta in one year (June, 1894, to June, 1895) was as follows:

Garbage burned....	14,048,500 lbs.
Night soil..........	7,527,500 "
Dead animals.......	191,476 "
Total...........	21,767,476 lbs, or 10,884½ tons.

This would give an average of a little less than 35 tons daily, excluding Sundays, consumed by three tons of soft coal or screenings, or nearly 12 tons of mixed refuse to the ton of coal. Three men (unskilled employees) sufficed to do the work.

In most cities and towns dead animals are gathered and disposed of by companies or individuals, who repay themselves by utilizing various products without charge to the owners.

It will be observed that more than one-third of the weight of matters consumed at Atlanta is night soil, and it is probable that more than half the cost is due to this wet substance, which would be otherwise disposed of in sewered cities.

A very large portion of town refuse consists of street sweepings, consisting mainly of droppings of horses. With an effective plan of street sweeping and a reasonable rate of transportation by rail or water, most of this matter ought to be used for fertilizing. A small part is now utilized by gardeners, who are willing to haul it for a short distance. It ought to be gathered, compressed, baled and sent to the country, and will be in time;

but for the present the best disposal for most of it is cremation. San Francisco, and a number of other cities and towns in California, still remain in the barbarism of dumps within city limits and near the dwellings of many poor people, and this custom must prevail until the political boss is retired from business. In Atlanta the health department attends to all this work, and it is claimed that there is no politics in the business.

A few words are appropriate on the point of street sweeping. Revolving brushes have been devised, which do the work rapidly on smooth and unobstructed thoroughfares, but they never do thorough work; besides, they can work only at night, when street traffic has almost entirely ceased. These machines have been abandoned on the most important streets of San Francisco, and sweeping by hand through the day has been restored. No dirt piles are allowed to accumulate on these streets, and the metallic receptacles are emptied promptly into carts and the contents are hauled away to the dumps or given to any gardener who will take them. One or more crematories in San Francisco are now the one need to a satisfactory solution to the garbage problem.

In Oakland the present system of disposing of the city's garbage is not satisfactory to the Board of Health or Health Officer, so he informs me, and that "the charge for removing one carload daily is $122.50 per week, and then all is not taken out of the city." "The crematory, as far as has been tested, works satisfactorily, but a thorough test has never yet been made." It is a private plant and no regular patent. The streets of Oakland, the Health Officer reports, are swept satisfactorily.

From the foregoing it will be seen that cremation is the proper method for disposal of garbage and that our streets can and should be swept and kept clean.

Before closing this paper, for the information of many who are not familiar with the Dixon Garbage Crematory, I would state that there are now said to have been erected, within the past three years, and in successful operation, seven Dixon Crematories in the United States, and several are under construction, one at Los Angeles, California, and I hope soon another at San Diego. A brief description of the Dixon Crematory is as follows:

The main part of the Dixon Crematory has a large furnace about five feet deep and five wide, the whole length, into which garbage, night soil, dead animals, slops, etc., are emptied through large openings in the top which, when opened, also receives a current of air drawing into the furnace all stench from the garbage, etc.; the same falls on the grate bars of the furnace, the fluids and finer garbage percolating through between the grate bars are received in the lower furnace or evaporating pans; each of these have an independent fire, consuming all that comes in its way. The smoke, stench and gases arising therefrom pass over the retaining walls and through an opening in the base of a 50-foot stack where the stench consumer is located. This is about three feet square and is arranged with a "checker work" of fine clay blocks to be kept at a high heat by a small fire underneath, and the extra or escaping heat from other furnaces and burning gases which entirely consumes all stench and gases coming from the process of cremation of the garbage, night soil and dead animals. On account of this arrangement the temperature in the garbage furnaces can be kept quite low, say 600° to 800° F., thereby saving fuel and lengthening the life of the furnace. Some of the companies claim that they now use a fire in the stack, yet that will not prove a success with an open stack, and this idea of a checker work or cross sections in the base to hold the heat and gases until consumed is covered by the Dixon patents. You know that one can pass his hand through a flame of fire and not be burned, but when coming in contact with a very hot solid substance it must be burned.

Nervousness in Tornado Sufferers.

We learn from the *Medical Review* that Dr. W. B. Outten, editor of the *Railway Surgeon*, has sent a request to various physicians to relate their experience as to nervous symptoms manifested by their patients in consequence of experiences in the St. Louis tornado. A number of lethal issues have been observed among young as well as old, healthy and sick individuals, where death was attributed to fear during and in consequence of the tornado. Several suicides were reported which to an extent were undoubtedly due to an intense disturbance of the *psyche* of the unfortunate individuals by the storm and its direct destructive consequences. The impression upon the nervous system of susceptible individuals will probably not be wiped out for months or years, and the study of the nervous phenomena resulting therefrom will be interesting, profitable and instructive. Nor will the subject be exhausted by the resulting affections of the nervous system alone, but the direct effect of the storm upon the course of other ailments and diseases will be equally interesting to note.

Sections.

MEDICINE.

In charge of SAM'L O. L. POTTER, M. D., M. R. C. P. L.

Tetanus Antitoxin.—Dr. J. Lewis Smith refers to four cases of tetanus neonatorum treated by Tizzoni's antitoxin, with incubation periods after birth respectively of two, nine, one, and seven days, of which only the last recovered. As to the general statistics of tetanus sero-therapy, he quotes a letter of Mr. Hewlett, which is perhaps the latest summary of the statistics, and which says: "I have been able to collect records of forty-two cases of tetanus treated with antitoxin, nearly all traumatic, and of these fifteen died and twenty-seven recovered, giving a mortality of about thirty-six per cent."—(*Archives of Pediatrics.*)

Contraindications for Gastric Lavage.—Dr. Hemmeter, of Baltimore concludes that the use of the stomach tube is contraindicated in all constitutional and local diseases in which the disease could be aggravated or life endangered by the irritation and exertion of lavage. Among these could be mentioned: pregnancy (though this is not a disease); heart diseases, in a state of defective compensation—heart neuroses, angina pectoris, myocarditis, and fatty heart in advanced stage; aneurysm of the large arteries; recent hemorrhages of all kinds, including apoplexies, pulmonary, renal, vesical, gastric, and rectal hemorrhage, and hemorrhagic infarctions; advanced pulmonary tuberculosis; advanced pulmonary emphysema with bronchitis; apoplexy and cerebral hyperemia; advanced cachexia; presence of continued or remittent fever.

The stomach and intestinal diseases which Boas states are contra-indications of the use of the tube are: ulcer, with recent hematemesis and dark stools; palpable carcinoma of the pylorus, with vomiting of coffee-ground material and the classical symptoms of cancer; many gastric neuroses in which the character of the malady is clear without lavage; stomach or intestinal troubles with acute fever; gastric mucosa easily started to bleeding; secondary gastric affections whose dependence upon a distinct and more important primary disease is evident.

These are not invariable rules, however; there may occur cases under some of these exceptions when, on account of depressing self-intoxication from the stomach or advanced gastric fermentation, lavage is peremptorily required. Thus, according to Boas, it has been employed with success in pregnancy, and the author once washed out the stomach in a case of typhoid fever, with favorable result, and also greatly relieved a case of aortic regurgitation with Bright's disease and gastrectasia by the same means. Professor Moritz, of Munich, has frequently passed the stomach-tube in pregnant women to ascertain the intra-gastric pressure.—(*New York Med. Jour.*)

Action of Electricity on Diphtheria Toxins.—In a paper read before the Medical Society of the London Hospital by Dr. Hedley, the author considered at length the advantages of the *static induced current*, which, he said, may carry energy enough to light a five-candle power lamp, and if the human body with its thousands of ohms resistance be at the same time placed in circuit there is scarcely a perceptible diminution in the brightness of the glow, and notwithstanding the tremendous amount of energy passing there is scarcely a consciousness of its passage. The physiological effects of such currents, according to d'Arsonval, are as follow: (1) an analgesia at the point of entry and exit of the current; (2) a fall of arterial tension; (3) increased action of the skin; (4) increase in the "respiratory combustions"; and (5) the virulence of blue pus is attentuated and after about half an hour's application the bacillus dies. More recently the same experimenter has addressed himself to "the soluble products of the microbes"—the toxines. Taking a U-shaped tube having a partition at its lowest part to prevent admixture of liquids he filled each branch with an active diphtheritic toxine and in each placed an electrode, one connected with the positive and one with the negative pole of this current. Now as the current which traverses the toxine is oscillating at the rate of at least 200,000 alternations a second it is possible to form some idea of the molecular shaking to which the culture is subjected. Having thus electrised an active diphtheritic toxine for fifteen minutes d'Arsonval and Charrin had injected 2.5 c.c. into three guinea-pigs and the same amount non-electrised into three other guinea-pigs. There was no doubt about the result. The "control" animals died within a few hours of each other in about twenty-four hours; the others were alive and well. The importance of the fact that the body can bear such high amounts of energy in this form is from a clinical point of view at once apparent. These currents being without action on the sensory and motor apparatus of our bodies, may it not be possible to use such currents strong enough to attenuate the toxine in the living body?—(*Lancet.*)

Swelling of the Parotid Gland.—Dr. Cocking, of Sheffield, reports the case of a man aged 40, who was under treatment for dyspepsia and constipation and certain functional nervous symptoms, complained that for the last two or three years he had been much troubled with a swelling in the region of the right parotid which came on suddenly whilst eating and lasted for an hour or two. The swelling was somewhat painful and interfered considerably with mastication. He had found that pressure with the hand caused a profuse discharge of fluid into the mouth, after which the swelling gradually lessened and disappeared. The fluid had occasionally a nauseous flavor. The left gland was also affected, but much less frequently than the right. On one occasion only was an opportunity afforded of a personal examination of the swelling, which, however, had then to a great extent subsided. At that time some fullness and slight redness of the skin were detected below the right ear, and on firm pressure a copious jet of clear watery fluid was observed to escape from Stensen's duct. Nothing abnormal was at any time discovered in the mouth. Change of air and improvement in the general health resulted in the complete disappearance of the affection for some months. At the present time the attacks are considerably less frequent and give rise to much less discomfort than formerly.—(*Lancet.*)

Peripheral Neuritis in Pregnancy.—At a recent meeting of the Edinburgh Obstetrical Society, Dr. G. Elder described two such cases, both in multiparæ, and both occurring about the sixth month. The symptoms began with tingling and other paræsthesiæ, which gradually increased until the shooting pains and feelings of pins and needles were very severe and disturbed health. In both they were chiefly in the hands but in one of the cases also in the feet. Sensation was affected in both cases to some extent, but there was little or no paresis, although, owing to loss of sensation, no fine work requiring careful co-ordination could be done by the hands. In neither case could any other cause of neuritis be discovered—alcohol, diphtheria, influenza, pneumonia, albuminuria, glycosuria, typhoid, lead, etc., being excluded. Both began to recover immediately after delivery, and recovery was pretty rapid—in one case in three or four weeks, in the other in three to four months. There could be no doubt, he thought, that the gravid state was the exciting cause of the neuritis. The number of cases of peripheral neuritis, evidently due to pregnancy, reported, were very few (he could only find eight cases in all); and nearly all of these had been preceded by severe vomiting, and all had been very severe cases. He was inclined to believe that the cases of peripheral neuritis in pregnancy of a mild type must be very much more common than one would expect from the number of cases reported. That vomiting was not necessary to produce the condition his cases showed, and it was just possible that the vomiting might be due to the same cause as the neuritis, and so be only a concomitant symptom. The neuritis was evidently toxæmic in origin, though there was no evidence as to what the exact nature of the poison was. Some recent writers were of opinion that some of the cases of peripheral neuritis found during the puerperium had really commenced during pregnancy. If the symptoms got very severe it would be one's duty to terminate the labor, as after delivery recovery set in.—(*Brit. Med. Jour.*)

Gliosis in Epilepsy.—Dr. Bleuler found in 26 brains of epileptic patients a definite hypertrophy of the bundles of neuroglia lying between the pia mater and the outermost nerve bundles. The neuroglia is increased in quantity, the fibres thickened and elongated. The greater number run parallel to the surface and transversely over the convolutions. With low magnification, therefore, a cross section of a convolution looks as if covered by a scar which has nothing to do with the subjacent tissue. With higher powers a somewhat intimate interchange of fibres between the more superficial and deeper layers is seen to exist. The change was to be seen over the whole of the brain. The cases were all severe ones of epileptic idiocy, and were of 10 to 60 years' duration. The intensity of the gliosis was not proportionate to the duration of the disease or to the degree of mental affection. The brains of 54 persons who had suffered from various diseases of the brain, but non-epileptic, showed for the most part not a trace of gliosis, and in the 15 the appearances that were found were not entirely like those in epilepsy; the gliosis was only of small extent, the fibres were arranged more loosely and were less parallel, so that the tissue often presented small spaces filled occasionally by so-called amyloid bodies. The author concludes that diffuse subpial gliosis is a constantly observed condition in epileptic dementia. It is probable that the gliosis develops with the clinical picture of epilepsy. "Essential epilepsy would thereby be rendered anatomically capable of diagnosis."—(*Munch. med. Woch.*)

Gouty Disease of the Heart.—Dr. Schott discusses the question whether there are real cardiac affections which are either directly or indirectly due to gout. Every symptom occurring in a gouty patient must not be attributed to this disease. The chief evidence must rest upon clinical experience. Chronic cardiac disease rarely occurs in cases of typical gout. In irregular gout the greater number of cases occur in men over 40. In ordinary gout the heart is often temporarily affected. In the acute attack there is often pain in the præcordium, palpitation, and even intermittency. Cardiac debility with more or less marked dilatation, feeble heart sounds, etc., are further proof of the affection of the heart. If the attacks are infrequent the heart recovers completely, but if they occur often a lasting cardiac debility remains; in one case the author saw a bradycardia thus arise. In irregular gout the picture of the cardiac affection is more variable. Coupland's case of uratic deposit in the aortic valves shows that gout can produce valvular disease, but such cases are rare. The more frequent occurrence of sclerotic changes in the valves is more important, but the difficulty lies in excluding other causes of such disease. In some cases the author has definitely been able to exclude other causes, and he specially records a case in which a valvular lesion developed under observation. Gout most often leads to motor and sensory cardiac symptoms. Palpitation is frequently seen. True tachycardia may arise, and even precede the attack of gout. When the gout appears the cardiac symptoms vanish, but they usually reappear afterwards. Pain in the cardiac region is the slightest sensory disturbance. The cardiac debility may cause a sense of anxiety in the præcordial region. Typical angina pectoris may develop. Such attacks may not represent the worst forms of angina, and the author refers to a case in which after a certain number of attacks no further one appeared. Frequent recurrence of such attacks shows that they are a true angina due to a gouty sclerotic origin. The author does not think that gout can produce a primary myocarditis without previous affection of the coronary vessels.—(*Berlin klin. Woch.*)

Loeffler's Bacillus and Diphtheria.—At the recent congress at Wiesbaden, Dr. Hennig of Königsberg stated that he had made exact clinical and bacteriological examination of 63 cases in relation to Loeffler's bacillus, which he had found present in 35 cases; in only some of these was the disease clinically true diphtheria; in others it was follicular sore throat or tonsilitis, and one was a case of pharyngitis aphthosa Heryng. Moreover the bacillus was not present in 7 cases that subsequently exhibited typical paralysis, and Hennig therefore concludes that this microbe cannot be invariably the determining agent in Bretonneau's diphtheria, and that no treatment based on the hypothesis that it is so can be accepted as specific. He proceeded to point out that the results of serumtherapy are by no means as brilliant as they seem; that other methods have given better results before the antitoxin had come into fashion, many writers having saved all but 3 or 4 per cent of their cases, including gangrenous and scarlatina cases. Finally he recommended the treatment he had himself consistently persevered in adopting in 1,927 cases, with a mortality of only 3.06 per cent., namely, lime water, the permanent application of an ice cravat, etc.—(*Berlin klin. Woch.*)

GENERAL DEMOGRAPHY AND CLIMATOLOGY.

Under the charge of P. C. REMONDINO, M. D.,
Member of the American Public Health Association, of the American Medical Association, of the State Board of Health of California, and of the Board of Health of the City of San Diego.

Symposiums in Medical Journalisms.—The various symposiums upon political and socialogical matters that have appeared in the *Forum*, *North American Review*, and the *Arena*, emanating from the minds of writers well conversant with their subjects, furnish a reader with very satisfactory and instructive information on a given subject. This system of collecting reliable views and of disseminating information on particular and unsettled points or subjects in medicine, should have been inaugurated by the medical press long ago. In the last issue of the *North American Practitioner* we are glad to note this departure in our journalism, Dr. Hollister, the editor, furnishing his readers with a symposium on the treatment of diphtheria by ten of the eminent authorities of Chicago. While the consensus of opinion is favorable to the use and action of antitoxin, it is a gratification to us who practiced as long ago as twenty-five and thirty years, to see that the treatment which we then pursued is still the one in vogue among the discriminating professors of our art. Prof. John A. Robison, of Presbyterian Hospital, still uses with good results the old formula for local application composed of *liq. ferr. subsulphatis* and *acid carbolic* in combination with glycerine, which we have more than once profitably applied with a nasal syringe or with a camel's-hair brush. Prof. Frank Billings still advises the old lime-water and glycerine inhalation or spray. The value of the use of oxygen gas is recognized by most authorities. Prof. Wm. E. Quine, of the College of Physicians and Surgeons, speaks highly of the virtues of antitoxin; he begins at once by the injection of "Behring's No. 2" and does not record any harmful results from its use. The X-rays are now, however, opening up a new treatment for diphtheria.

Development in Treating Prostatic Hypertrophy.—From a letter received from our professional brother, Dr. Reginald Harrison, of London, concerning the treatment of prostatic hypertrophy, it would seem as if surgery were searching for a substitute for castration in the treatment of this difficulty. Dr. Harrison favors the division of the vas deferens, and has already achieved good results through that operation. Professor Isnardi, of Turin, ligates the spermatic cord and obtains equally as good results as obtained by castration by Braun, of Berlin. There are cases wherein the operation of Isnardi, or that of Harrison, is far preferable to the complete castration as performed by White, of Philadelphia, or by Brown, of Berlin.

Prof. White has obtained exceptionally good results, but in timid or very aged cases, cases prone to fatal *mental* and nervous shock, the apparently lesser and milder operation would seem to be preferable and safer. In my practice I lost a case that merged into delirium from mental and nervous shock. The man was in his 83rd year, and the fear or timidity did not show itself until immediately after the operation, when he became helplessly despondent, and although the hypertrophy was improved upon and that he urinated freely, and although the operative wounds did well, the patient died on the ninth day from nervous prostration consequent upon the mental and nervous shock and subsequent delirium. The operation of Prof.

Harrison, as well as that of Prof. Isnardi, are followed by atrophy of the testicle and of the prostate, and by speedy relief of all distressing symptoms. Professor Guyon, of Paris, also performs the operation advocated by Prof. Harrison.

Among the dumb animals the complete destruction of the physiological structure of the cord is at times induced by passing the scrotum with the contained cords between the two blades of a split stick, the blades are then so suddenly and so forcibly compressed together as to effectually destroy the cords and their physiological conditions, and by the results induced by the subsequent inflammation the cords are converted into mere fibrous cords. For this purpose a pendulous scrotum is a requisite—but as the results are fully as effectual as castration and as Harrison, Guyon and Isnardi have shown that the effects on the prostate are fully as satisfactory as by castration, we may yet come to adopt the ligation or division operation as the technical operation for the relief of prostatic hypertrophy.

The operation carries with it no horrors and no great surgical fears, neither is it as apt to be followed by as great mental and physical shock. In one case I operated upon—a case of double castration—the patient was extremely irritable and restless, and I wished more than once that I had followed the plan of high division of the cords between the ligature and then ablated the scrotum. In such a case nothing else would answer, as the resulting tumefaction due to the bruising of the scrotum between the thighs would have happened with any operation short of the complete ablation of the whole scrotum and contents.

The credit of first bringing the subject of the relation of testicular atrophy or its removal to prostatic atrophy, in a tangible manner before the profession, is due to Prof. White, of Philadelphia. In the same year Pro. Braun, of Berlin, brought the subject before the German profession. Prof. Harrison, of London, performed his first operation on the vas deferens for the same purpose in the same year—1893. Isnardi, of Turin, performed his first operation of ligation of the cord in the following year. In 1856, as noticed by Harrison, Dr. Decimus Hodgson, in a work on the prostate, published at the time by Churchill, of London, observed that: " In persons who have been castrated the prostate dwindles down almost to a rudimentary condition."

Music, Youth, Baldness, and the Emotions.—The subject of music and the effects of various musical instruments upon health, have lately been the objects of investigation among sanitary statisticians. The observer states that out of 1,000 girls who practiced piano playing before the age of 12, 600 suffered from some form of nervous affection, while in 1,000 girls of the same age who had never taken any piano lessons, only 100 suffered from any nervous ailments. These results are undoubtedly the outcome, more of the abuse of piano practice, or of the too indiscriminate and too arbitrary over-application of the pupils to their tasks at the hands of their parents, than from any simple effects of piano playing upon health. Some children have no more music in their soul than they have art or poetry, and it seems a needless waste of energy, time, and health, to tie down such a child a number of given hours every day to a piano, when it can never in any sense become a player. Such a child cannot be said to be striving for an accomplishment, as it cannot, in any sense, be said to possess an accomplishment, when grown, simply because it can, in the end, mechanically beat a piano, or evolve sounds out of the instrument with the expressionless monotony, but not with the regularity, of a Swiss musical cylinder. An unmusical child cannot be made into a Mozart by any forcing process any more than a Norman draught horse can, by whipping or training, be made into an Arabian courser. We simply ruin the child's nervous system by such insane efforts; and engender settled and incurable nervous diseases. The same rule applies to attempted forcing in other regards, as for instance in drawing or painting, where without a taste, inclination, or adaptation, all attempts at making Rembrandts or Raphaels to order is an injurious waste of time.

Another observer has carried his investigations into more minutely considered fields of research, and from statistics tells us of the havoc that music may make into those physiological processes that are so intimately controlled by the nervous system. These researches have established that among those who enter the liberal professions, that 11 per cent can expect to become bald headed. The British medical profession becomes bald at the rate of 30 per cent. Among musicians, the full average of bald heads is 11 per cent. String instruments favor a Paderewski hairy scalp, whilst trombones and other brass wind instruments tend to make their inblowers bald. All pianists are proverbial for their lionine and Samsonian looks, whilst the cornet player is as proverbial for his thin looks. This observer remarks that the large trombone will, in five years, cause a loss of 60 per cent of the hair of the hairiest player in existence. Harpists are full haired. The flute and the clarionette tend to thin the hair slightly after the age of fifty. These observations were made on English military bands and English orchestras.

The orchestras and repertoires employed at dinner concerts should be chosen more with an eye to their physiological than their more simply artistic effects. The emotions should here be undisturbed during the ingestion of the meal, and it is really a question, whether, in the end, these dinner orchestral accompaniments are not more injurious in a physiological sense than otherwise, unless we consider them as a distraction factor from business or other cares, or as nervous soothers, as for instance when David played on the harp before Saul, so that our digestion might otherwise go on unimpaired. The instruments usually employed at these prandial concerts—violins, flutes, etc.—are generally too shrill, and the music is as generally ill chosen and out of sympathy with a gradually filling stomach, and not enough of the cheerful order.

Elaborate pieces abounding in plaintive and weird minor notes or lower semi-tones, do not act like champagne bubbles in assisting digestion. Prandial concerts should possess the cheerful variety and even tenor of buoyancy of a fairy tale, and any music suggestive of ghost stories, Scandinavian bloody revels, or of the murder of Francesca and her lover, with the avenger coming in to slow music, is all sadly and physiologically out of place where the stomach has to wrestle with a breaded cutlet and a dish of maccaroni with Parmesian cheese and mushroom gravy. Some careful and conscientious investigator should study the effects of various instruments and various tones upon some Alexis St. Martin, and report the results. The results would then read something like this: "Breakfast of three fried eggs and two slices of bacon, bread and butter, coffee with milk, accompanied by orchestral selections from 'Sinbad, the Sailor.' Digestion complete in three hours. Dinner of white baked fish, boiled beef, potatoes and spinach, rum omelet, bread and butter, with a pint of California Cabernet and small black coffee, accompanied by operatic selections from the 'Rose d'Auvergne;' complete digestion in three hours and thirty minutes. Same breakfast with Wagnerian selections, still undigested five hours after the meal. Same dinner subjected to an accompaniment of selections from 'Sigfried,' still undigested at midnight."

Whilst the refining of the emotional part of our nature seems an indispensable adjunct to our higher civilization, we should not torture these emotions, when well planted, by subjecting them to harrowing music or to the thrilling upheavals that are inseparable from witnessing the performance of the average murderous melodrama—especially not after a well discussed and generously well appointed meal, unless we wish to become dyspeptic, or the victim of Bright's disease. In our present therapeutic epoch, we too much neglect disease factors and physiological disturbers, as well as all else that pertains to preventive medicine. We become too much of the droning empiric either in surgery or in medicine, to the neglect of the study of those many demographic causes of disease that daily augment our perplexities. We too much neglect the seeds that in the end bring about pathological degenerations. All of our daily pursuits have their good or evil sociological results and moral and physical bearings as well. We are, in some senses, altogether too serious, and in many more senses we fail to take the proper serious and analytical views that we should of the inevitable results of many of these pursuits.

Ohio as a Civilized Theater Center.—Ohio is to become the most comfortable theater going sovereignty in the world. Tall, broad, excessively adorned, and obstructing hats, have been abolished in all Ohio theaters by an act of the legislature, and the temper and digestion of all male theater goers will now go on unruffled. This will undoubtedly tend to reduce the death rate in that State from apoplexy incident to an uncontrollable and unreined temper, as well as it will diminish the quantity of ailments due to results of eye strain. Fragile and atheromatous vessels will also be less strained by neck craning and stretching, thereby also lessening the amount of diseases of the blood-vessels.

There is a new innovation proposed, which will further assist in lessening the amount of disease in general, as the Ohio ladies now will have a bill introduced making it a misdemeanor to go out between acts, or to expectorate tobacco juice along the floors of the theaters. It is very exasperating to be obliged to lose the opening part of an act owing to the rude interruption of the incoming of the many who go out regularly between acts and who stand in the rear of the seating part of the theater until after the rise of the curtain. This is a prolific source of a cultivated dypsomania to the outgoing males, and as prolific a source of hysteria and resulting diseases to those who do not go out, but who are subjected to all the annoyance.

There is much that is silly about theater going, and which needs reforming. A man done up in a dress suit and planted like a tailor's lay figure on exhibition in the rear part of a box, where he can see only a small section of the stage, and where he can only hear such dialogues as are carried on in a vociferous tone of voice, cannot consistently be said to be at the play, as he can neither see or hear the actors, nor even the stage setting. When Louis XIV attended the first presentation of one of the plays of his time, he usually sat in a position equivalent to a center seat in what in our theaters is represented by the gallery just above the parquet. That is the best point from whence to see a play. The slanting position of the boxes to the stage only enables their occupants to be placed on exhibition as respects the rest of the audience, and only one or two of those box occupants can really see the stage or the play. The orchestra chairs are so placed that the floor stage effects are lost to the spectator, and he is at the same time so near to the orchestra that he loses the best effects of the music.

We hope that the Ohio leaders will carry their point. It will be a temperance flank move on the men and a lessener of exasperation to all respectable theater goers.

TRANSLATIONS FROM THE SCANDINAVIAN.

By CARL C. HANSEN, M. D., Mosul, Turkey.

Prevention of the So-called Scrofular Ophthalmias.—Among the many general diseases which also influence the organs of sight there is none that is so often accused of causing disease of the eyes as scrofula.

The diseases of the eyes that scrofula occasions are chiefly superficial affections of the skin and mucous membranes, blepharitis, conjunctivitis, especially conjunctivitis phlyctenularis, and superficial keratitis, but now and then the corneal inflammation goes deeper, and causes perforation of the cornea. According to Dr. Eiler Hansen, 30 per cent of the children received at the Institute for Blind owe their blindness to scrofula.

Each time a child has a keratitis, a scar is left, a corneal opacity, and as the disease has a very great tendency to relapses, the number of opacities is increased, and finally sight is diminished, often in high degree, without the child becoming blind. After a time, the opacities clear up somewhat, and the sight may become better; but some diminution of sight remains behind, depending upon the position of the opacities opposite the pupil. The sight of the unfortunate children often becomes so poor that they are unable to follow instruction in school, while they can not be received at the Blind Institute, because they see too well for that. Surely we need schools for the half-blind.

It is not alone on account of the opacities that the children are unable to advance in the schools. During the acute stage of the disease there is so much photophobia and suffering that they are unable to take part in the instruction, and, as there is frequent recurrence, it often happens that the child must be kept from school for a good part of the school year.

Could a prophylactic be found for scrofular ophthalmia, as has been found for blennorrhœa neonatorum, a great advance would be made. This is by no means impossible.

If we examine more closely the children, who in large numbers come to the eye clinics with scrofular ophthalmias, to determine upon what the diagnosis of scrofula should be based, we will soon ascertain that scrofula, as a rule, only shows itself by enlargement of the glands in the neck, suppurating excoriations and eczema on the head. But is this sufficient to diagnose scrofula? Not absolutely, if there can be found other causes for the glandular swellings and the eczema. And that can be found.

As I already, in 1889, in this paper, have called attention to, there are in nearly all cases of scrofular ophthalmia found pediculi capitis. For eight years I have constantly had my attention directed to this, and have only obtained further proofs for my observation. It is only in few cases of these diseases that pediculi can not be shown. I am, therefore, entirely certain that pediculi, and not scrofula, are most frequently the cause of these ophthalmias.

Is this, now, so unnatural? It does not appear so to me. Pediculi cause itching of the head, the child scratches itself, and the result is a small excoriation, which, in the uncleanly child, suppurates. A scab forms upon the wound; this again occasions itching; again the child scratches itself, getting the secretion on the fingers, and rubs this into the eyes, as children so often rub their eyes, either on account of sleepiness or because a little irritation of the conjunctiva occasions itching.

This is, now, good enough. But what has pediculi to do with the other signs of scrofula, with glandular swellings and eczema? That both conditions can be caused by pediculi, Kaposi has strongly pointed out. "Lousenapeabscess," as Chief Surgeon Bloch is said to call it, is due as surely to pediculi as these in the above mentioned manner can cause suppurating excoriations and deeper wounds, which both can give occasion to swollen glands, and be the starting point for eczema.

If I am right in my assertion, then the most important treatment of the scrofular ophthalmias must be the removal of the pediculi, and it is also surprising how this assists in the cure. As soon as one can get the child cleaned it will quickly recover; but when the hair grows out, and pediculi show themselves again, a recurrence takes place. It is impossible to give any statistics at this time, as the duration of the scrofular ophthalmias vary greatly; but there is another fact which speaks for the correctness of my observation. How can it be that children received at children's hospitals, coast hospitals, children's sanitariums, etc., in the course of a short time, are cured of their ophthalmias? If these were actually dependent on a dyscrasia, it would be natural that some time should elapse before the ophthalmias were cured, for it takes a long time before a dyscrasia becomes better. Besides, in such places, relapses are rare, while they often occur quickly after the cured child has come home to the old uncleanly surroundings, long before other signs of a new activity of the dyscrasia have shown themselves. On the contrary, if the ophthalmia is due to pediculi, and not to scrofula, it is easily explained; for in the hospital the child is at once freed of the pediculi, while it quickly gets them again when it returns to its home. I am not blind to the fact that great objection can be made to my view, as it seems strange that these observations should not have been made before; the ophthalmologists might have called attention to this long ago. I can only say that there are two authors, who, for each of these diseases, have made similar observations, and

I have mentioned them in my report of 1889. The reason that this cause has been overlooked appears to be that it is difficult for the inexperienced to see the pediculi. It is, however, very easy if one will be satisfied with looking for the eggs, and not the pediculi themselves, as these hide themselves easily between the hairs, while the eggs are adherent to the hairs, often in great masses, especially in the hairy regions of the temples, forehead, and the nape of the neck. Eggs being found, one can safely conclude that there also are pediculi.

As will be seen from the above, it is not my opinion that pediculi directly cause ophthalmia. I rather believe that it happens indirectly by their occasioning the suppurating excoriation, but I cannot, however, deny that one or another sharp secretion or excretion of the pediculi may give rise to the disease. The child could, of course, just as easily get this matter on the fingers and rub it into the eyes. This explanation speaks for a case which Dr. Giersing has reported, (Bibl. of Laeger, 1846, p. 33) in which a pediculus got into the eye and caused phlyctenular-like inflammation. I have undertaken to put an egg into the conjunctival sac, but it did not produce any irritation. On the other hand, scrofula can, without doubt, cause ophthalmia and also excoriations which are due to other causes than pediculi; the same of nasal affections, but what I desire to emphasize is, that in most cases the pediculi are the special cause.

This being accepted the prophylaxis must depend on the removal of the pediculi. Through asylums and schools much can be done in this direction if the attention of the teachers be called to it, and yet more could be done if we, as in some other countries, had school physicians.

Against most prophylactic methods one can entertain suspicion, as they, under certain conditions, might do harm, but this prophylaxis is entirely harmless, as the children could never receive anything but benefit by being free from their pediculi. There is difficulty, however, in bringing about this prophylaxis. The parents' feelings are often hurt on being told that their children have pediculi, and if one show them the eggs they often maintain that they are dead.

I advise all colleagues, as well ophthalmologists as others, to look for eggs of pediculi in all children with "scrofular ophthalmias," they will surely not regret to have done this and to have them removed.—Gordon Norrie in *Hospital-stidende*, No. 3, 1896.

TRANSLATIONS FROM THE FRENCH.

By W. L. ADAMS, M. D., Palo Alto, Cal.

Contagiousness of Tuberculosis.—At the meeting of the Academy of Medicine, March 31st, 1896, a discussion took place concerning the contagiousness of tuberculosis, that seems to show that a certain reaction is taking place against the theories in force during the past few years. Both M. Jaccond and M. Ferrand expressed doubts as to the efficacy, or rather as to the necessity, of measures that had been taken to prevent contagion from tuberculous patients, whether in public places or in hospitals. M. Kelsch, one of the distinguished physicians of the great Military Hospital at Paris, in taking part in the discussion, stated that in the discussion one very important factor seemed to be neglected or forgotton—that is, auto-inoculation or auto-infection. In his opinion, auto-infection in many cases should occupy the place now wrongly attributed to contagion, and to prove his views brought forward the condition of affairs observed in the army. He says: In the military hospitals the most rigorous prophylactic measures are taken. No precaution is omitted either to prevent or to combat contagion. Nevertheless tuberculosis in the hospitals is increasing from year to year. Upon what does this depend? Upon that latent tuberculosis, the tuberculosis *ganglionaire* of childhood. This may be seemingly completely extinguished, but yet under the influence of some acute affection auto-infection occurs and tuberculosis reappears. This occurs far more frequently than is generally believed, and to it are due many cases considered as due to contagion. M. Kelsch says that in autopsies of very many young soldiers that have died of some acute disease, one finds masses of tubercles in pleura, lung, liver, etc., that are the relics of active foci of tuberculosis in which the activity has nearly ceased, but which constitute a constant menace for the future. In these cases there was enlargement of the cervical glands in childhood, this was recovered from and the health was apparently perfect, but following an attack of grippe for example, or even measles, the tuberculosis would reappear and take its usual course. There exists a constant direct relation between this cured infantile tuberculosis and the tuberculous foci discovered later by army physicians. The cervical adenoma of childhood is the first stage of the invasion of the disease, the tuberculosis of the young soldier is but the second stage. Just as the virus of syphilis, for example, may sleep, as it were, and not awaken for many years, so with tuberculosis. And so all the measures taken in the barracks and military hospitals to prevent contagion have no effect upon a disease due mostly to auto-infection.

Gaiacol v. Cocaine.—In a discussion upon the comparative merits of these two drugs, at the meeting of the Academy of Medicine, May 19th, M. Paul Reclus said that as a result of his observations he has concluded that the anæsthetic action of cocaine is vastly superior to that of gaiacol. It would be impossible (he said) to perform with the latter the important operations that I do daily with cocaine, viz: removal of carcinoma, incision of varicose veins, radical cure of hydrocele, castration, artificial anus, radical cure of hernia, gastrostomy, ablation of protruding hemorrhoids, even simple ovariotomy. Together with many surgeons I have believed and written that gaiacol had a more general action than cocaine, especially upon inflamed tissues. But it is an error. Many times I have been able to open painlessly vast abscesses, even adeno-phlegmons of the neck, in spite of the thickness of the tissues to be traversed before reaching the abscess cavity. In order to succeed in these cases it is only needful to give a somewhat larger dose of cocaine and to wait longer after the injection before intervening. In regard to the relative danger of the two drugs, one cannot deny that already an important number of deaths can be imputed to cocaine. But the cocaine itself is not to blame. Every time that there is accident or death following the injection of cocaine the operator has either been ignorant of, or has violated, the rules established by experience for the correct administration of the drug. Either the dose has been excessive or the solution injected has been too concentrated. For the same dose of cocaine that is harmless in dilute solution becomes dangerous if concentrated. As regards the quantity used, we have no authentic observations of death resulting from a dose less than 20 centigr. The conclusion follows that we should not exceed that quantity, and for my part I do not go beyond 15 centigr. This is my extreme limit, and there are but few operations that need even this dose. For a radical cure of hernia I rarely attain the dose of 10 centigr. With a 1 per cent solution we have for 10 centigr. the contents of ten Pravaz syringes to inject, and we know what a large field of operation we can cover with that quantity of liquid. The patient should always be in the horizontal position. The injection should begin when the needle has penetrated the derma, and should be continued while the needle advances into the tissues. Cocaine can be used whenever the surgeon knows in advance the exact route that his knife will follow, and wherever the field of operation is not too extensive.

Carious Teeth as a Means of Entry Into the Body for the Bacillus of Tuberculosis.—Doctor Strarck, of Heidelberg, has reported two cases that clearly show that a decayed tooth may be the point of departure for the invasion of the organism by the bacillus of tuberculosis. In the first case, a young man after a violent toothache had enlargement of the submaxillary lymphatic ganglia on the same side as the affected teeth—the left lower molars. During the three months following the tumor increased to the size of the fist, painless, irregular of surface, soft and elastic in parts. On the *right* side there was slight enlargement of sub-maxillary and sub-clavicular glands, and prolonged expiration in upper lobe of lung. The teeth were extracted and the tumor, which was in a state of caseous degeneration, was removed. Microscopic examination of the teeth showed numerous bacilli of tuberculosis. The second case, in a girl of fourteen, was very similar. Large numbers of bacilli were found in the extracted tooth. In three cases resembling these two in their clinical aspect, bacilli were demonstrated in the cervical glands, but none could be detected in the carious teeth.

The author believes that not only tubercle bacilli, but also other pathogenic microbes can penetrate the body *via* decayed teeth.

Dental caries appears to be also the most common cause of ordinary chronic lymphadenoma in infants. In 113 cases of infants with enlarged sub-maxillary ganglia no other cause could be determined in 41 per cent of the cases. We see from this the extreme importance of hygiene of the mouth, from the point of view of prophylaxis, during the early years of life.—(Reported in *La Revue Médicale,* May 23, 1896.)

The Use of Antidiphtheritic Serum by the Oculist.—The use of the antidiphtheritic serum and its specific action in conjunctival diphtheria, whatever its clinical form may be, has confirmed the bacteriological identity of the croupous and the interstitial form,—the identity first brought to light in the works of Morelli, Coppez and Sourdille.

The following are the therapeutic conclusions: 1st, the serum has a rapid and efficacious action in conjunctival diphtheria; 2nd, its action in non-diphtheritic pseudo-membranous conjunctivitis is *nil*; 3d, its action is specific and thus it assists in diagnosis; 4th, its use in doubtful cases is harmless; 5th, other means of diagnosis should not be neglected; according to the results of frequent bacteriological examination we should continue or not the serumtherapy; 6th, in cases of mixed infections the prognosis should always be reserved, even with the use of the serum; after the injections and the disappearance or loss of virulence of Lœffler's bacillus, the conjunctivitis may persist on account of the presence of associated microbes, especially the steptococcus; 7th, local treatment does not interfere with general treatment; in case that serumtherapy is insufficient and the violence of the infection is marked, local treatment may be imperative.—M. AUBINEAU, *Progres Médical*, June 6.

The Dietetic Value of Cheese.

The minds of agriculturists have of late been greatly exercised to find some explanation for the depression in the Cheshire and Cheddar cheese trades. From the remarks of the Duke of Westminster at the Cheshire Dairy Farmers' Association it would appear that the lessened consumption of this, at one time, popular article of diet is due in great measure to a growing belief that it is inferior as a nutritive agent to tinned meats, and that this view is held by medical men. The assumption, we are convinced, is by no means correct, and from analyses, conducted on behalf of the *Medical Press and Circular*, we are in a position to state that Cheddar cheese of British manufacture contains a much higher percentage both of flesh-forming substances and of fats than meat, even of the finest quality. This view was held by no less an authority than the late Dr. Parkes, of Netley, who persistently maintained that as cheese contained a very large amount of albuminoid material in a very small bulk it was one of the best foods for soldiers in time of war. Dr. Thudichum in his recent work, "The Spirit of Cookery," states that cheese "is the most valuable animal food obtainable," and that it is "from two to three times as nutritious as the same money-value of ordinary meat." With the purely agricultural aspect of the subject we are not directly concerned, but it is our duty to point out that the argument frequently adduced that Cheddar cheese is less nutritious than meat is based on an entirely erroneous assumption.—*London Med. Press and Circular.*

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Editorial.

CHEAP DRUG STORES.

The multiplicity of cheap drug stores in our community is indicative of a most deplorable condition of affairs. It is not to be thought of for a moment that the prescription business has become so great that a drug store is needed at every other street corner.

Patent medicines are being sold at so low a profit that as a source of income this line of trade must be very inconsiderable. To what then must we look as the cause of the hundreds of so-called drug stores in San Francisco? It is evident that the greater number are not engaged in legitimate drug business. It is not necessary to have the keenness of a Sherlock Holmes or a Pinkerton detective to understand that the business of the cheap drug store is to supply the demand for morphine, cocaine, preventive and abortion medicines, and the various instruments for improper and immoral purposes so frequently asked for by the public but which the physician never prescribes.

Though laws against the sale of those articles are upon the statute books no efforts are made to prosecute offenders. It would seem that a nefarious business so openly carried on could be easily suppressed, but for some inscrutible reason justice is blind and the scales are unevenly balanced. The late episode wherein abundant proof was furnished to show that a certain alleged druggist furnished cocaine to a young man in spite of the prayers and tears of the broken-hearted mother who implored the dealer not to sell her son more of this poison, looks as though these creatures had some influence which prevents conviction. Their greed for money is so great that they freely sell these forbidden things to men, women and children.

They care not that their victims are driven to crime, insanity or suicide so long as they reap a harvest of coin.

The cheap drug store means something else. It means that there is danger to our patients who carry our prescriptions to them to be filled. Cheap drugs, cheap clerks and substitution is what may be expected at these places. Every physician readily understands that this may mean not only disappointment in the expected results, but positive danger to patients. We need stringent laws to control the drug business and a strong public sentiment which will demand the enforcement of these laws.

The adulteration of drugs is the rule rather than the exception. This is especially true of all the most common used home remedies, gum Arabic, licorice, Peruvian bark, saffron, aconite, peppermint, and so on, through a list of hundreds of well-known articles. By purchasing inferior drugs, a capital of two or three hundred dollars is all that is necessary to establish one in business as a druggist. As far as the public is concerned, they know no difference between the cheap and the better class of drug stores. As soon as physicians learn that these places are not being conducted honestly they should make it their duty to warn their patients against them. Mistakes by inexperienced drug clerks, though quite common, seldom result seriously; danger is, however, always present. Deaths have followed as a consequence of giving a poison instead of some harmless drug.

It is the duty of the druggist to furnish patients pure and unadulterated drugs and to be able to skillfully compound all prescriptions.

As an illustration of the danger to the public of patronizing cheap drug stores the following case is condensed from the *Medical Press and Circular:* A woman entered one of these cheap stores and called for sal. volatile for a severe headache. The ignorant clerk in attendance gave her a solution of strong ammonia. The woman's life was saved with great difficulty, but she will always remain an invalid; she has lost all sense of taste and smell. The druggist was sued for $5,000, but the case never came to trial as a compromise was made, the defendant paying all the costs.

To guard the public against these dangers the severest penalties, as fines and taking away of licenses, when death does not follow the mistakes; and indictment for manslaughter in case of death should be the law. A strong combination between the better class of druggists and physicians, backed up by public sentiment, would soon break up the cheap drug-store dens of fraud and iniquity.

THE UNSANITARY SLEEPING CAR.

At the last State Sanitary Convention we spoke of the unsanitary condition of the Pullman palace sleeping car. We characterized it as the abomination of abominations; why? Because with every breath the inmate is taking into his system poison. Notwithstanding the hundreds of thousands of dollars spent in creating a car of palatial beauty, easy to ride in, and tolerably free from dust, smoke and noise, yet but a minimum of attention has been given to proper ventilation. In fact, under present conditions the sleeping car cannot be properly ventilated. Consider the fact that the sleeper is packed away upon a shelf almost entirely closed in and is breathing and re-breathing his own polluted breath, is it any wonder that he arises unrefreshed from his night's sleep, that his head aches, that his tongue is coated, that he has lassitude, weariness and frequently a distaste for food?

Enter a sleeping car which has been crowded for a few hours and you never fail to notice that the air is bad. Add to this the danger of contracting diseases arising from the presence of tuberculous patients who are found in every car, and we can readily believe that though the danger from accident is one in a million times, the danger of contracting disease is exceedingly great. We are pleased to note that this question is coming to the front. At the next meeting of the American Public Health Association this subject will receive special attention.

From *The Modern Medicine and Bacteriological Review* we learn that in Germany, under the direction of the Imperial Board of Health, bacteriologists have been examining the dust of railroad cars and have found in fourth-class cars more than 1,200 germs per meter, and in first-class cars about one-fifth of this amount. Animals inoculated with this dust died of tuberculosis, proving the presence of this germ in the dust. This question should be taken up and discussed by every medical society and the public should be educated to the point of demanding legislation controlling the carriage of consumptives in the same apartments with healthy persons, as well as demanding a better system of ventilation.

HAHNEMANN HOSPITAL COLLEGE.

The faculty of the San Francisco Homœopathic Medical College has had, it seems, serious thoughts of closing up or, perhaps, more correctly, closing down the school. We should think such an action would be a step in the right direction. It is quite impossible to even imagine what excuse there can be for a homœopathic medical college. They do not claim to teach homœopathic anatomy, or physiology, or histology, or bacteriology, or pathology, or chemistry, or jurisprudence, or obstetrics, or surgery. Why not establish a post-graduate course where any graduate in medicine could acquire the few dogmas peculiar to homœopathy. It is not so certain that they might not increase the number of homœopathists. The unnecessary expense of dissecting rooms and laboratories would be avoided. Or why should they not advocate the establishment of a homœopathic chair in the regular medical colleges. This would give them an opportunity to impress their dogmas upon all who wished to take the course, and the course might be made obligatory. The homœopath ought not to fear comparison. Let the fittest survive.

SUNSTROKE.

Until this summer sunstroke has been almost unknown in California, occasionally a case of partial sunstroke, or at least some one having suffered from extreme heat has been reported. This year, however, there have been reported several cases. Dr. Taggart, district surgeon for the Southern Pacific Company at Bakersfield, informs Chief Surgeon Gardner of the railroad that the intense heat this summer in the San Joaquin valley had caused a number of deaths from sunstroke. Dr. Smith, of Bakersfield, had a narrow escape a few days ago and is still sick from the effects of sunstroke. Dr. Ainsworth, of Los Angeles, has reported to Dr. Gardner that there are seventeen additional patients in the hospital of the road in that city, most of whom are suffering from partial sunstroke. They were taken to the hospital from points along the road in the Mojave and Colorado deserts. Dr. Ainsworth has also informed Dr. Gardner that there have been several cases of death from sunstroke in that part of the State.

BOAT RACING.

The faculty of the University of Pennsylvania has forbidden a number of the students that failed in their examinations to row, or rather to practice for the great race on the Hudson. These old fogy Quakers of Philadelphia must think that students are sent to college to obtain an education! The Quaker Fathers are behind the times. Learned teachers are no longer drawing cards at our *modern* universities. It is the reputation of the football or rowing *coacher* that draws. The university faculty that would turn out educated, cultivated gentlemen, would not be "in it" with the college that produced the champions in that brutalizing game—football.

A SUIT FOR CONTRACTING TYPHOID FEVER.

The following extract from the *Medical Age* is significant, showing, as it does, how rapidly the public is learning that disease may be controlled or even prevented by the proper observance of hygienic laws. The old notion that every case of sickness or death is due to a wise dispensation of Providence instead of a violation of natural laws, is becoming obsolete.

The widow of a man who recently died of typhoid fever in Ashland, Wis., brought suit against the Ashland Water Company for $5,000 damages, alleging that the corporation permitted the water to become polluted with typhoid germs, and that her husband's death was due to this pollution.

There is little doubt that suits of this kind will, in the future, increase, and that damages will in many instances—and should in the majority—be obtained.

The City of Windsor, Ontario, is at the present moment suffering from the ravages of typhoid, and the epidemic is daily increasing, simply because the city government has for two years refused to take appropriate measures to prevent the sewage from the Walkerville suburb from being drawn into the city's water supply; even an efficient health officer and health board were removed because they insisted on looking after the welfare of the people, and an incapable officer and inefficient board appointed who are amenable to the criminal negligence and penuriousness of the Common Council.

Now, the Provincial Health Board has taken a hand in the matter, and it remains to be seen whether a city council can continue to wantonly jeopardize the lives of the people.

THE NEW NURSE.

Under the above caption, a recent editorial in the *Practitioner* contains the following well-timed criticism: "The first volume of Professor Clifford Albutt's monumental 'System of Medicine,' which has recently appeared, contains an article written by a nurse. This is a somewhat startling sign of the times. Doctors were formerly supposed to teach nurses; now, apparently, the nurses are to teach the doctors. The next thing will probably be courses of instruction in nursing for medical men, who must at least be taught their place in relation to the New Nurse. This knowledge is becoming more and more necessary to the practitioner, and the want of it is likely to get him into trouble. The New Nurse waxes every day fatter, figuratively speaking, and 'kicks' more vigorously. She is no longer, it would seem, contented with a certificate; she must have a degree. At least 'post-graduate' lectures are given by learned ladies, and reported in the *Nursing Record* for her edification. 'Exhibitions' are arranged where medical and surgical appliances of all kinds are displayed, to the admiration of the public and the greater glory of the New Nurse. Her tastes are strongly surgical, and she has a scarcely concealed contempt for the general practitioner. Even the hospital physician is made to feel that his attempts to hide his ignorance do not impose on her. If his cases recover, the credit is hers; if they do not, the fault is his. She is more tolerant of the student, for—to say nothing of his possibilities from a matrimonial point of view—he is more keenly conscious of his inferiority and more grateful for her patronage."

THE honorary degree of Doctor of Medicine will be conferred upon Dr. J. S. Billings by the University of Buda-Pesth.—*Science.*

PRACTICE OF MEDICINE IN HAWAII.

The Legislature of the Republic of Hawaii has passed a bill regulating the practice of medicine in that Republic. The main points of the act are as follows: No person shall practice medicine or surgery gratuitously or for pay without first obtaining a license from the Minister of the Interior. For the purpose of this Act, the practice of medicine shall be held to include the use of drugs and medicines, water, electricity, hypnotism, or any means or method, or any agent, either tangible or intangible for the treatment of disease in the human subject. A person wishing a license must first pass a Board of Medical Examiners, he then takes a written report to the Board of Health, which in turn recommends the Minister of the Interior to issue a license if the applicant is found duly qualified. All applicants must first pay to the Minister of the Interior a fee of ten dollars. Any violation of this Act entails a punishment of not more than two hundred and fifty dollars. A license may be revoked at any time by the Minister of the Interior for professional misconduct, gross carelessness, or manifest incapacity. A person charged with these offences may be heard in his own defense. This Act was approved June 18, 1896.

THE AMERICAN PUBLIC HEALTH ASSOCIATION.

We have received a preliminary circular of the twenty-fourth annual meeting of the association, which will take place September 15th, 16th, 17th and 18th, 1896, at Buffalo, N. Y. This meeting promises to be one of unusual interest, judging from the titles of the papers to be read. They cover a much wider range of subjects than ever before, such questions as "Car, Steamboat and Steamship Sanitation;" "The Transportation and Disposal of the Dead," and the "Transportation of Diseased Tissues by Mail," are a few of the titles already published. All communications should be addressed to Dr. Earnest Wende, Chairman Local Committee of Arrangements, Buffalo, N. Y. Dr. Irving A. Watson, Concord, N. H., Secretary.

DR. O. W. JONES, 1901 Post Street, has gone to Europe, to be away for a year or more. During his absence Dr. H. I. Bloch will take his office.

Proceedings of Societies.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

The regular meeting of the San Francisco County Medical Society was held June 9th, 1896. The President, Dr. W. Fitch Cheney, occupied the chair. The minutes of the previous meeting were approved as read.

The report of the Committee on Admissions upon the candidates, Drs. J. C. Stinson and F. Fehleisen, was favorable, and they were duly elected members of the Society.

Dr. C. H. Carlson, graduate of Cooper Medical College, 1894, was proposed for membership, and referred to Committee on Admissions.

Dr. T. Byron De Witt read a paper entitled

Report of a Case of Leucocythemia.

Mr. President, Ladies and Gentlemen: I have the pleasure of presenting this interesting case of leucocythemia to the Society, through the kindness of Dr. Washington Ayer. I want to take this early opportunity of thanking both Drs. Ayer and Abrams, for their timely suggestions and consultations in this case. I am further indebted to Prof. Abrams for his generosity in placing his assistant and his time at my disposal. The specimens of blood, spleen and liver may be seen under the microscope at a convenient time this evening.

This case is presented, not because of anything remarkable in the treatment, or the results attained, but rather, that typical cases of leucocythemia are not very common. To Dr. Hughes Bennett, in 1845, appears to belong the credit of recognizing the salient features of the affection, as a distinct disease. A month later, however, Virchow published another case, when he recognizes the disease as distinct and independent. In these cases the change in the blood was only recognized after death. It was first observed during life in 1846, by Dr. H. W. Fuller and subsequently by Dr. Walshe. In Germany the first case was diagnosed during life by Dr. Vogle in 1848. Since then, numerous cases and descriptions of the disease have been published by Virchow, H. Bennett, Vidal, Huss, Ehrlich, Gowers, Birch, Hirschfeld and others.

The ætiological relation is still doubtful. In only a small proportion of cases of leucocythemia can any causation be traced. Heredity has only been traced as a history of splenic disease in ancestors in one or two isolated cases. Injury to the spleen, as a cause, can only be traced in few cases. Bad hygiene, malaria and repeated hemorrhages are predisposing factors. In this case, however, Dr. Ayer says: "Five years ago this patient was suffering from pernicious anæmia and amyloid kidney, and now assigns these, as the early symptoms and principal factors leading to this interesting, as well as instructive case of leucocythemia." As the local or primary symptoms are very important in the uniform enlargement of the spleen, liver and lymphatic glands, as were found in this case; may it not be due to the continued and general manifestations of this pernicious anæmia and amyloid degeneration of the kidney, so early and clearly recognized by Dr. Ayer? The clinical history given me by Dr. Ayer at that time was, ulceration and swelling of the throat and dorsal arch of the mouth, as well as enlargement of the cervical and axillary glands. The axillary glands becoming very large, extending to, and involving the pectoral muscles, where formed a large collection of generating leucocytes, the tumor discharging much pus. This history very closely resembles that of Hodgkins' disease or pseudo leucocythemia, which is characterized by a hyperplasia of the lymphatic glands, which usually begins about the neck without any increase of the white corpuscles. Many times since then the patient has consulted Dr. Ayer and other physicians, among them Dr. Jacobi, of New York. The doctor has had an excellent opportunity to watch the case develop, having lived next door to him much of the time.

April 26th, 1896, the patient called Dr. Ayer, and on the following Tuesday, the 29th, he was sent for, but having an attack of illness, I was called and asked to take charge of the case during the doctor's illness. Mr. M., aged 57, married; a merchant. The patient did not complain of any particular pain, but a sense of extreme dyspnea. Face pale but each time I saw him it became more cyanotic. Pulse 84, temperature 100, respiration 36. The tongue covered with a thick, heavy coating, black from the tinct. iron previously prescribed by Dr. Ayer. The tone of the voice was altered, being thick and gutteral. The gums and soft palate greatly swollen, spongy, and œdematous. The fauces and posterior nares altered in character from the thickening of the interstitial tissue, due no doubt, to the infiltration of leucocytes or actual lymphoid growth, as the tonsils and follicles of the tongue were enlarged. The general appearance of the tonsils and throat might have been mistaken for that of a diphtheritic state, had there been any tendency to the formation of a true membrane, as in diphther ia. As the patient stood before me, the shirts well up under the arms, I became interested in the case. I could see the contour of the body, irregular, the skin thickened and nodular, showing earlier inflammations which resulted in this hypertrophied condition of the entire glandular system. The distended abdominal walls, clearly outlined the enlargement of the spleen and liver. The spleen covering the whole left half of the abdomen, reaching well down into the iliac fossa measuring 12½ inches length, and 9 inches width. The liver was enlarged, but not in the same proportion as the spleen, and measured in transverse diameter nearly 16 inches, and 7½ inches thick. To make the contour still more irregular, the patient had sustained a right inguinal hernia, much of the viscera descending into the scrotum. There was no ascites, but there was very much œdema in both limbs and feet.

After the examination I excused myself and told the family that I would consult with Dr. Ayer and prescribe for the patient when I returned. Full of excitement and apprehension about the case, I met Dr. Ayer. When I heard the history it was very satisfactory to me, and yet, my fears of a sudden dissolution were not removed and so I expressed myself to the doctor. We prescribed Fowler's solution four M. doses to be taken every three hours and a cathartic. Calomel and bicarb. sodæ aa grains six, to be given at once. In the afternoon no change to note.

Next morning, April 30th, pulse 90, temperature 101, respiration 40. He slept well after midnight. Little change in afternoon. Morning visit May 1st, pulse 92, temperature 101, respiration 43. Sleep broken; urine scanty and red. Gave patient lithia water with an additional lithia tablet, grs. 5, to be taken in the lithia water every four hours. In the afternoon patient thanked me for the grateful drink I had given him, offering the suggestion that he was much better, which I failed to note, but did not say as much to him.

Next morning, May 2d, pulse 97, temperature 101½, respiration 51 and restless, but slept fairly well. Urine free and abundant. I called to see Dr. Ayer every morning, not only to visit him, but to report on our patient and consult him. At this time we gave sulph. strych. 1-40 gr., that we might strengthen him some, and show our willingness to assist our patient in every way that we could. In the afternoon the febrile symptoms had increased and patient more restless, the dyspnea more apparent. I told the family of my conviction and suggested additional consultation. Dr. Abrams' name was mentioned by the family and I asked that the doctor be sent for as soon as possible.

That evening met Dr. Abrams in consultation, giving him a brief history and treatment of the case so far, and told him our diagnosis was lymphatic anæmia or Hodgkins' disease. After the examination by Dr. Abrams he suggested an examination of the blood as a differential diagnosis between leucocythemia and Hodgkins' disease or pseudo leucocythemia. I asked the doctor to meet me the next day again when I would have a sample of blood and urine for examination.

May 3rd, 8 A. M. Patient had failed rapidly during the night. The restlessness of the day before had passed away and the patient sat leaning forward, the secretions of the mouth running out and down the chin. Could only be aroused by an effort. This condition had been since 3 o'clock early morning. Gave nitro-glycorine 1-100 grain and changed his position. Told the family that the patient was very low and that I would call again. Two hours later I called to find the patient dying. I asked the family for an autopsy when Dr. Abrams should come. While at my office for the necessary preparations for the autopsy Dr. Abrams came. With his assistance, as well as that of Mr. Gross, his assistant, and the aid of the microscope, it took only a few minutes to determine that we had a typical case of leucocythemia.

To me the most interesting feature of this case has been the differential diagnosis, as has been shown. The recognition of leucocythemia could be determined only by microscopical examination of the blood, characterized by the increased white blood corpuscles which were at once apparent. The proportion of the relative and actual numbers of the red and white blood corpuscles vary from 1 to 500 to 1 to 20.

We know little of the condition under which the disease develops. Malaria is believed by some to be an etiological factor. Of 150 cases analyzed by Dr. Gowers there was a history of malaria in 30. The disease is common in middle life. Males are more subject to the affection than females. In women, the disease is most frequent at menopause. There are instances in which it has developed during pregnancy. Olser reports a case described by J. C. Cameron, of Montreal. It is in this respect remarkable, as the patient passed through three pregnancies bearing on each occasion non-leucocythemic children. The case is interesting, too, as showing the hereditary character of the affection, as the grandmother and mother, as well as a brother, suffered from symptoms strongly suggestive of leucocythemia. One of the patient's children had leucocythemia before the mother showed any signs and a second died of the disease. At the last report, this patient had gradually recovered from third confinement and the ratio of white to red was 1 to 200.

Recovery rarely occurs. Death usually results in from one to three years; this case ran for five years. Removal of the spleen gives negative results. It has been removed twenty-four times and twenty-three deaths. Of the treatment, good hygienic conditions are the important general indications. The use of iron, quinia and arsenic. Arsenic given in large doses is the best. Quinia combined with arsenic in cases with malaria history.

In opening the discussion, **Dr. Abrams** said: There is not much to add to the doctor's paper. I might say that there were certain things about this case that made it interesting. There was an excessive involvement of the lymph glands, numbers of lymph nodules about the body, the palate, and gums were affected and face distorted. As to the blood examination, there was found an increase of white cells, such as is seldom met with, they almost equaling the red. About fifteen cases have fallen under my care, and the blood examined, and in the worst case there was only about 1 to 100. The spleen was greatly enlarged, equal in size, nearly, to any that I have ever seen, excepting the one we have at the Cooper College, which weighs 19 pounds, and is, I believe, the largest in existence, the largest one mentioned in medical literature weighing only 17 pounds.

Dr. John Wagner: Some years ago I had an interesting case of leucocythemia in consultation with the late Dr. C. E. Blake.

Dr. Chas. G. Kuhlman: I had the pleasure lately of experting a case in Judge Daingerfield's court, and therefore feel competent to discuss the matter. I should like to ask Dr. De Witt how long before death did the cerebral symptoms come on?

Dr. De Witt: About 24 hours.

Dr. Kuhlman: And you call that a typical case of leucocythemia?

Dr. De Witt: Yes, sir; I do.

Dr. Kuhlman: Then I object. Take what it was first termed, for instance, "leukæmia," being from the Greek. It means "white blood," and was known 400 years before the Christian Era. In 1868, Hughes Bennett introduced the word "leucocythemia," meaning "white-celled blood." He and Virchow regarded all cases in which the per cent of white corpuscles were 5 or 6 to 1 red as being typical; above that, not. I cannot believe, therefore, that Dr. Abrams was correct. The blood examination was made post-mortem, when the red corpuscles undergo a change, so that sometimes they cannot be distinguished from the white. As to the cerebral symptoms, they generally appear from two to three months prior to death. So, therefore, in conclusion, I will say that I do not consider the symptoms, etc., are such as to warrant us in taking this as a case of typical leucocythemia, but rather one of splenic anæmia, or pernicious anæmia.

Dr. De Witt: I think all the authorities would bear the diagnosis out. The enlarged spleen and the white corpuscle increase, as shown microscopically, are typical. As to why a blood examination was not done before death, I can't tell. I fear we do not use our microscopes as often as we should.

Dr. Abrams exhibited a case of what was no doubt a beginning hemi-facial atrophy, resulting from a constant habit the patient had of rubbing the left malar bone. Electrical examination seemed to bear out his theory. Such cases are rare, only forty being mentioned in literature.

Dr. Leo Newmark: I have under my care at present a patient with an intense neuralgia of fifth, with an atrophy of the side so affected. The atrophy was primary, however, thirty years ago. For some time now it has remained at a standstill.

Dr. Jas. McCone read a case of

Congenital Malformation of the Rectum with Report of an Exceptional Case.

Mr. President: It is not my purpose to trouble you with polysyllabic words. To report an unusual case of rectal malformation I am forced to generalize a little, and to introduce a few embryological theories and facts. I will try to do so in a simple, schematic manner.

Malformation of the rectum—the first question suggested is: how is the *normal* rectum developed? I will endeavor to point out, 1st, the early association between the genito-urinary and alimentary systems; and 2nd, the method of separation between these systems and the development of the normal organ of separation.

1st. In figure 1 taken from the "American Text Book of Obstetrics" we note that the primitive digestive canal is formed by the inclosing of a portion of the yelk sac. This is caused by the approximation of head and tail folds. The allantois is formed by the budding out of a portion of the primitive gut. We know that the bladder and urachus are developed from the allantois, consequently the early absolute union of urinary and digestive tracts is plain. The proctodæum projects inward from the caudal fold to meet the hind gut. On meeting, fusion takes place, and we have a being with one orifice for both alimentary and urinary discharges. The fœtus is a monotrema. This is the condition in the fifth week.

2d. Separation between the genito-urinary and alimentary systems. The proximal separation is presumably due to the rapid development of the loop between bladder and gut. The distal separation is not so simple. On either side of the cloaca the genital eminences appear. These eminences increase in size and coalesce in two places. The hind fusion is supposed to give rise to the perineal body, the fore fusion produces the penis or clitoris. Between the points of joining we have the "urogenital sinus." Behind the perineal body, in front of the coccygeal fold, we have the permanent anus.

I will name now the nine classical divisions of Bodenhamer, and the embryonic error committed in the causation of the different varieties will be evident.

1st. Congenital narrowing of the rectum.

2nd. Complete occlusion of the anus by membrane or skin.

3rd. Anus absent. Rectum terminates in a blind pouch more or less distant from perineum.

4th. Anus normal in appearance, but ends in a cul-de-sac, more or less distant from the blind rectal pouch.

5th. Anus absent. Rectum ends in a perineal or sacral fistula.

6th. Anus absent. Rectum ends in vagina, bladder or urethra.
7th. Anus normal. Ureters, vagina or uterus opens in rectum.
8th. Total absence of rectum.
9th. Absence of large intestine.

The case I have to report comes under the 4th division.

Patient.—Baby S. Female child, age 5 days.

History.—Baby has not had a passage since her birth. The abdomen has become distended; the patient has been vomiting from time to time for last four days. Professor von Hoffmann was called to attend the case. Careful examination revealed the following.

Signs.—Baby well developed, valve and anus apparently normal. Abdomen distended. A catheter passed into anus was abruptly stopped one half inch from the anal margin. I had the honor of assisting Professor von Hoffmann during the operation for relief of the infant, and will briefly tell you what was done.

Operation.—No anæsthetic was used. The baby was placed in the lithotomy position. The bladder was catheterized and clear urine, free from meconium, was drawn off. A probe passed into the anus about one half inch, and into the vagina one and one quarter inch. An incision was made from immediately behind the vulva to the coccyx. The opening was carefully deepened and the blind pouch of the rectum felt for. The coccyx was next removed, and thus the operator's field was markedly increased. The operator's finger was then carried up to the pelvic brim, the pelvic region carefully explored without finding the rectum. The perineal wound was covered with sterilized gauze, and a formal cœli otomy was performed. The abdominal incision was made in the median line. Intra-abdominal palpation located the end of the bowel in the right lumbar region. The bowel ended in a blind pouch, and for the terminal two inches had no mesentery. It was freely movable and much distended. An artery forceps was next introduced through the perineal wound, and was attached to the end of the intestine. The abdominal wound was then closed, and dressed aseptically. The child was again placed in the lithotomy position, the gut was drawn down and stitched to the anal margin. This was readily accomplished. The bowel was then incised and flatus and meconium passed freely. A dressing was applied and the little one put in bed. Eight hours afterwards she died in collapse, and *thereby helped* to spoil statistics.

This case, besides being exceptional, presents many interesting features. The perineal incision was, of course, the first logical indication, but what to do after the futile search for the bowel is a matter I invite you to discuss.

Should the operator have followed Henry Wharton and others, and performed left inguinal colostomy? Subsequent events proved that such a procedure would have been useless.

Should right inguinal colostomy have been performed? I do not think there were any particular indications for such a step, and if it had been successfully taken the child would have been condemned to carry a disagreeable, unsatisfactory, misplaced anus until the end of her life.

Should the extensive median incision have been made? I think in this case it was the proper thing to do. It offered but a glimmer of hope, but the æsthetic, scientific, logical indications seemed best met by median cœliotomy and perineal entrostomy.

In some works on rectal malformations the theory of the obliteration of the gut canal by inflammation is advanced. The complete absence of ligamentous connection between the anal cul-de-sac and the blind intestinal pouch is strongly opposed to the theory of inflammatory causation.

By means of plates and diagrams the formation of the alimentary tract was demonstrated in an exceedingly interesting manner.

Dr. Kuhlman, in opening the discussion, said: An interesting case and I can only indorse Dr. von Hoffmann's method of procedure.

Dr. Harry M. Sherman: I would like to ask Dr. McCone if the tumor would have been felt in the left iliac fossa whether the same incision would have been made? The technique is exceedingly good.

Dr. McCone: I would make the incision directly over the tumor in that case.

Dr. Sherman: Would you, after this case?

Dr. McCone: Yes; the technique could be continued the same, and the bowel would not have to be handled so much as when one would have to hunt for it.

Dr. Kuhlman: As a rule, however, in these cases the bowels are so distended with gas that a location of a tumor or the outlining of any organ is difficult if not *quite* impossible.

Dr. Shiels thought that the central incision, irrespective of any distension or tumor, was the best one to use, and even if one had to search for the blind end it would be better than to use the lateral incision.

Dr. John Wagner: Some years ago two cases fell into my hands in one week, and both were eight-month babies. I was always looking for such cases and examined every child then as now, with the exception of these cases. The nurse gave, or attempted to give, an enema to the baby, but said that it "came right back." A blind gut was found. Dr. McLean was consulted but declined to operate as the child was nearly dead. Three days after this I confined a young girl 17 or 18 years old, and several days afterwards my attention was called to the child's condition. Unaided and alone I made a perineal incision and a long way up found the gut, which I could not, however, pull down to the anus. As the infant was exceedingly feeble it died within a few hours.

Dr. F. B. Carpenter: I would ask Dr. McCone if it was not possible to do a post-perineal operation rather than a laparotomy. Of course the danger from infection in a median incision is not great.

Dr. Woodward: As to the anæsthetic, wouldn't the depression from not using it be as great as if it were used?

Dr. Shiels asked the size of the gut in this case.

Dr. McCone: As regards the incision, Dr. Shiels and others commended the median incision. Various authorities speak of either right or left lateral and no mention is made of the median. The use of an anæsthetic wouldn't have made much difference. I think the child did not seem to be in pain, didn't struggle at all. The size of the gut was about like the thumb, perhaps larger. The making out of the difference between the large and small intestine was difficult, and only by tracing them could they be told apart.

Dr. Frisbie exhibited

A Wooden Corset,

Some of the wood from which it was made and a brace for flat foot. A plaster cast was made of the patient and another from this on which this wood was put in thin strips not unlike bandages over a linen frame by means of glue.

Dr. Harry M. Sherman: The only question is how would this suit the glorious climate of California. Others than Phelps in New York say that it is too hot there for it. I am more interested in making a celluloid corset which would be an ideal corset. I made one but it has drawbacks, it costs too much, and then, as the celluloid sets so quickly, it can't be molded so easily on forms. The celluloid I had I understand to be a poorer quality and when I get some better I shall try again. Weyler, at Rochester, makes a corset of matrix paper, glue and afterwards enameled and baked. It is light, dry and clean, and would be as good as celluloid, only not so easy to make. The foot-brace exhibited is only the old style common foot-brace and is used simply to educate the muscles to overcome flat foot. The term "arch of the foot" is a misnomer, it is a truss.

Dr. Campbell Ford read a paper on operation for ovarian fibroid closure of wound with the

"Continuous Interrupted" Suture

devised by the author. The method of suturing was fully demonstrated to the Society during a recess declared for that purpose. [Dr. Ford's description appeared in full in the Journal for July.—Ed.]

Dr. Tait: A fibroid of the ovary is rare, and before admitting this to be one we should examine the specimen. As to Dr. Ford's stitch, I think all sutures should respond to four or five indications, simplicity, expediency, antiseptic, security. In the method of Dr. Ford only one is met, security. It has none of the others; not rapid or simple. I've seen it used lately and it took about three times as long to insert it as the old suture. It is certainly not as clean, as it is handled much more. He says we can separate off and combine the different layers of tissue. Not necessary. When do we ever open up a wound? On the third or fourth day, and catgut would be absorbed. The case where I saw it used it was an absolute failure.

Dr. Barbat: About the only place I see for its use would be in sewing the peritoneum or in fascia, where the rapid continuous suture would be used. It could only be used for gut or silk, and not silk-worm gut.

Dr. Shiels: I would repeat what Dr. Barbat says. Sutures are only splints, and the advantages of an interrupted suture is that the edges could be readily adapted. What advantage this "chain gang" of interrupted sutures can have I don't see.

Dr. Farnum: In sewing wounds of the intestinal canal or peritoneum they are so delicate they might tear, which doesn't happen in the interrupted.

Dr. Ford: As to the case spoken of by Dr. Tait, the stitches were put in by one who had never used them before, and he knows that outside influences did the work in that case. As to rapidity I can put in six of mine to one interrupted. As to infection, there is not so much danger as only one handling of one needle and silk, and the needle-holder has nothing to do with it. As I said in soft and deep structures, it is not necessary to pass beneath the thread after reef-knot. The tension is in the right direction. They can be cut between, and are then simple interrupted sutures. They cannot slip.

Dr. Farnum: Would it not slip when it is applied?

Dr. Ford: No, you have absolute control over both ends, the ordinary knot rolls too, and loses tension, here it does not.

Dr. Carpenter: Suppose we should tie the knot too tight or wish to loosen it?

Dr. Ford: Simply pull it loose. As to the length of time in applying, Dr. Stinson applied it the first time much quicker than he could have the interrupted, and is so struck with it that he uses no other since. Dr. Tait is somewhat against the stitch. Union not taking place in the skin has nothing to do with the suture.

Dr. Happersberger asked the name of the suture.

Dr. Ford: Dr. McNutt calls it the "Continuous Interrupted Suture."

Dr. Tait It is simply a modified and complicated continuous suture; a continuous suture can be anchored by a lock-stitch.

Dr. Shiels: Why put in a chain, Dr. Ford?

Dr. Ford: Why cut the thread, Dr. Shiels?

Dr. Shiels: We put in interrupted so we can take out any or either when needed.

Dr. Ford: So we can here. Any one who once tries will always use it, it is so handy and simple.

After demonstrating the stitch Drs. Shiels, Farnum, Barbat and others said it seemed feasible, and that they would use it when the chance arose, Dr. Shiels saying it was simpler than it looked at first.

No further business, the Society adjourned.

A. P. Woodward,
Recording Secretary.

Dr. and Mrs. Winslow Anderson have returned from their trip to Honolulu.

AMERICAN PEDIATRIC SOCIETY.

The Eighth Annual Meeting was held at Montreal, Canada, May 25th, 26th, 27th, 1896. Dr. James C. Wilson, of Philadelphia, presided, owing to the unavoidable absence of the President, Dr. Joseph O'Dwyer. The first session was opened by the reading of the President's address, entitled the "Evolution of Intubation." This was prepared at the request of the Council, and was a paper of the greatest interest, as it described the labors which Dr. O'Dwyer pursued with untiring devotion to a great idea through five long years. A bivalve tube was first used, but, after three years of continuous effort, it was abandoned, and experiments were begun with the solid tube. The paper described the various experiments made, with alternating failure and success, until at last obstacle after obstacle was overcome and imperfection after imperfection was removed. As a result of this patient toil, perfected instruments were given to the profession, a very rare thing in the history of medicine. The various steps taken in accomplishing this great result were narrated with the simplicity and modesty which has always characterized the work of Dr. O'Dwyer. A complete set of instruments, showing the evolution of intubation from the first bivalve tube to the present perfected model, proved of the utmost interest.

Dr. George N. Acher, of Washington, read the first paper, entitled "Gangrene of the Lung Following Typhoid Fever." Dr. J. H. Fruitnight, of New York, read a paper on "Malignant Endocarditis," and presented a specimen. As the bacteriological examination showed the condition to be due to the presence of streptococci, the author advocated the use of streptococcus antitoxin serum in such cases.

At the second session, Dr. A. H. Wentworth, of Boston, read a most exhaustive paper on "Lumbar Puncture," and reported twenty-nine cases. He affirmed that while normal cerebrospinal fluid contains neither fibrin nor cells, and is always clear, it is always cloudy in case of meningitis, though the cloudiness is sometimes very slight. This is caused by cells, the character of the cells differing with the variety of meningitis. The operation, the author believes, offers a valuable means of differential diagnosis. For such purpose, however, the microscope is essential, and inoculation experiments are also of value. This was followed by a paper on "Tapping the Vertebral Canal," with remarks on local treatment for tubercular meningitis, by Dr. Augustus Caillé, of New York. He reported twenty-one cases, and believed that a study of the cases reported up to the present time will certainly convince the most skeptical that Quincke's puncture is of positive value as a method of diagnosis. It is simple, and usually of easy performance. In two cases, Dr. Caillé injected antiseptics into the sub-arachnoid space, but without material results. He proposes, in some future case, to lay bare the dura by removing a button of bone and irrigating from a lumbar puncture upward through an opening in the dura. Dr. C. C. Jennings, of Detroit, also read a valuable paper on "Lumbar Puncture," and reported practical experience. Dr. Floyd M. Crandall, of New York, read a paper on the "Occurrence of Influenza in Children," and reported local epidemics. Dr. Samuel S. Adams, of Washington, reported an extremely interesting case of temporary insanity following typhoid fever. Dr. Frederick A. Packard, of Philadelphia, reported a case of endothelioma of the brain, with atrophy of the paralyzed members. Dr. Henry Jackson, of Boston, read a paper on "Nasal Feeding in Diphtheria," in which he advocated feeding by means of a soft tube passed through the nose into the œsophagus in certain cases of diphtheria. As this can be done with ease, it does much in preventing exhaustion of the child's strength.

Dr. William Osler, of Baltimore, read a paper on the "Classification of Tics, or Habit Movements." He made the following classification: I. Simple tic, or habit. II. Tics with superadded physical phenomena; maladie de la tic convulsif, or Gilles de la Tourette's disease. III. Complex co-ordinate tics. IV. Tic psychique. An imperative idea is the psychical equivalent of, and has an origin similar to, the motar tic. Each of these subdivisions was elaborated, and illustrated by practical examples.

The third session was devoted to the antitoxin treatment of diphtheria. The report of the Collective Investigation Committee of the Society upon the results of the antitoxin treatment in private practice was read. Over five thousand cases were reported, the result being, on the whole, far more favorable than any extended reports that have thus far appeared. A complete report will soon be published in full. Dr. F. A. Packard reported favorable results of the antitoxin treatment and Dr. S. S. Adams read a paper on the "Comparative Results of the Treatment of Diphtheria with and without Antitoxin in the District of Columbia." It appears that the death-rate from diphtheria in the District of Columbia since the introduction of antitoxin has materially diminished. Dr. Seibert, of New York, read a paper on "Sudden Death after Antitoxin Injections." He reported a series of striking experiments which showed that the injection into animals of carbolic acid even in the very weak solutions was constantly followed by most characteristic spasmodic movements. Another series of experiments was made to determine the effects of subcutaneous injections of air. The results seemed to show that an antitoxin can contain but infinitesimal quantities of carbolic acid. They also rendered the proposition reasonable that the few sudden deaths reported after the use of antitoxin might be due to the injection of air at the same time. The general discussion elicited by these papers was extremely interesting and showed a unanimous and very strong sentiment in favor of antitoxin.

At the fourth session, Dr. Rowland G. Freeman, of New York, read a paper on "Low Temperature Pasteurization of Milk at about 67° C." He proved that this temperature was sufficient to kill numerous pathogenic bacteria and various atmospheric bacteria and referred to the importance of avoiding unnecessary heat in the preparation of milk for infants' use. He represented a new apparatus, designed to pasteurize milk at 67° C. Dr. Charles W. Townsend, of Boston, reported several cases of thigh-friction in infants. Dr. William P. Northrup, of New York, reported a most interesting case of apparently relapsing cerebro-spinal meningitis followed by death and autopsy, which elicited a warm discussion on the pathology and diagnosis of meningitis. Dr. Henry Lafleur, of Montreal, reported a case of insolation in an infant of thirteen months. Dr. A. D. Blackader, of Montreal, reported a case of enlargement of the liver in a young child with symptoms closely resembling those of typhoid fever.

Papers were read by title by Drs. B. K. Rachford, of Cincinnati; F. Forchheimer, of Cincinnati; Irving M. Snow, of Buffalo; and Henry D. Chapin, of New York.

The last session was devoted to the presentation of pathological specimens, specimens being presented by Drs. Rotch, Holt, Caillé, Adams, Packard, Acker, Freeman, and Townsend.

The following officers were elected for the coming year: President, Dr. Samuel S. Adams, Washington, D. C.; First Vice-President, Dr. W. S. Christopher, Chicago; Second Vice-President, Dr. Chas. P. Putman, Boston; Secretary, Dr. Frederick A. Packard, Philadelphia; Treasurer, Dr. Charles W. Townsend, Boston; Recorder and Editor, Dr. Floyd M. Crandall, New York; Member of Council, Dr. William Osler, Baltimore; Chairman of Council, Dr. William P. Northrup, New York.

Licentiates of the California State Board of Examiners.

At a meeting of the Board of Examiners of the Medical Society of the State of California, held July 8, 1896, the following were granted certificates to practice medicine and surgery in this State:

ARMISTEAD, C. M., San Francisco; Med. Dept. Univ. Cal., May 13, 1896.
BACIGALUPI, L. D., San Francisco; Med. Dept. Univ. Cal., July 13, 1895.
BUTTERFIELD, W. WEBSTER, Los Angeles; Bellevue Hosp. Med Coll., N. Y., March 1, 1868.
CHACE, W. D'ARCY, Alameda; Med. Dept. Univ. Cal., May 13, 1896.
COOLIDGE, THOS., St. Helena; Barnes Med. Coll., Mo., March 17, 1896.
EPPINGER, ROSE, San Francisco; Med. Dept. Univ. Cal., May 13, 1896.
EVANS, IRWIN J., San Francisco; Detroit Med. Coll. Mich., April 30, 1896.
FELLOWS, ALFRED, Los Angeles; Northwestern Univ., Ill., June 11, 1896.
GOING, J. A., San Francisco; Soc. Apothecaries, London, Dec. 10, 1884; Member Royal Coll. Surg., England, Jan. 28, 1887.
HARRIGAN, J. T., San Francisco; Med. Dept. Univ. Cal., May 13, 1896.
HOAGLAND, G. B., Berkeley; Jefferson Med. Coll., Pa., May 15, 1895.
JELLINEK, E. O., San Francisco; Univ. Vienna, Austria, March 19, 1892.
KATSUKI, J., San Francisco; Med. Dept, Univ. Cal., May 13, 1896.
KINGSBURY, JAMES, Los Angeles; Bellevue Hosp. Med. Coll., N. Y., March 1, 1877; Med. Dept. Univ. City N. Y., March 18, 1880; Med. Dept. Univ. Penn., March 14, 1881.
KRONE, CARL R., Cazadero; Chicago Med. Coll., Ill., April 28, 1891.
LAMB, WAH JEAN, San Francisco; Coll. Med. Univ. Sou. Cal., June 3, 1896.
LEE, ARTHUR S., San Francisco; Med. Dept. Univ. Cal., May 13, 1896.
LOGAN, CORNELIUS A., Los Angeles; Miami Med. Col., Ohio, Feb. 28, 1853.
MALOON, CLARENCE L., Elmhurst; Med. Dept. Univ. Cal., May 13, 1896.
MCCULLOCH, T. A., San Francisco; Med. Dept. Univ. Cal., July 13, 1895.
MCLEOD, J. G., Sierra Madre; Coll. Med. Univ. Sou. Cal., June 3, 1896.
MORGAN, C. L., San Francisco; Med. Dept. Univ. Cal., May 13, 1896.
MOUTOUX, C. G. R., East Oakland; Hosp. Coll. Med., Ky., Feb. 22, 1877.
MORROW, H., San Francisco; Med. Dept. Univ. Cal., May 13, 1896.
ORR, R. H., San Francisco; " " " "
PUTNAM, V. G., San Leandro; " " " "
RYER, M. B., San Francisco; " " " "
STAFFORD, J. T., San Francisco; " " " "
STERN, A. A., San Francisco; " " " "
WALLER, N. B., San Francisco; " " " "

CHAS. C. WADSWORTH, M. D.
Secretary.

Selections.

For the Relief of a Bony Stricture in the Lachrymal Canal.

Dr. Thos. F. Rumbold, of St. Louis (*St. Louis Med. and Surg. Jour.*), makes the following operation: As the cut through the skin (the patient being under the influence of general anæsthesia) will be at the junction of the alæ nasi and the cheek, the scar left will be but slightly noticeable. This opening can best be made by a circular saw about one inch in diameter, attached to a surgical engine. It requires but little time to complete the sawing. A lachrymal probe with an eye in its lower extremity is passed down the lachrymal canal; this is used as a guide for the saw. The saw is made to cut out a piece of bone slightly less than a quarter of an inch at the bottom of the cut, and slightly over a quarter on the outside. Thus shaped, the bone when replaced will not fall too far into the bed. The length of the piece of bone is about one inch. Between the two ends of these cuts a small drill is used to cut loose the bone to be removed. This drill is so employed as to make the inner portion of the bone smaller than the outer portion; this, as before stated, is to prevent the bone when replaced from falling too far into its seat. As the bony canal is fully one-quarter of an inch in diameter, the portion to be taken out becomes quite movable as soon as the sawing and drilling are completed, as there is nothing to hold it except the fibrous structure removed from the fibrous canal and dropped in sterilized warm water.

After the removal of the bone the fibrous canal is moved to one side and the bony substance that formed the stricture all around the canal and on the piece taken out is removed by a drill on the surgical engine. After this the fibrous canal is opened lengthwise and a silk thread is passed into the eye of the lachrymal probe and drawn up through the canal and left to hang down on the cheek. The lower end of this thread is drawn through and fastened to a piece of smooth rubber tubing one and a half inches long and a little less than a tenth of an inch in diameter. After the rubber tube is fastened to the thread the lower end of the thread is passed down the canal and out at the nose. The rubber is to maintain the proper caliber of the canal. The thread is also used to draw the tubing gently up and down the canal, so as to remove muco-purulent secretion. The replacing of the bone and the closing of the wound requires no description.

Vivisection.

The following resolutions, presented by Dr. Gould, and recommended by the Council, were discussed and adopted unanimously by the American Academy of Medicine, May 4, 1896.

Resolved, That the American Academy of Medicine desires to express its opinion that no legislation is required or desirable in the United States in regard to the so-called practice or subject of "vivisection," and for the following reasons:

1. Because only by careful discrimination and collection of facts can public and legislative opinion be truthfully formed. To illustrate but a single of many popular errors upon this subject: the dissection or use of dead animals by scientific men is termed "vivisection," when the same proceeding carried out by the butcher, the hunter, the restaurant keeper, cooks, etc., does not enter into the consideration, neither do the cruelties in the use and keeping of domestic animals, nor those in the deaths of animals for other purposes than those of experimental medicine.

2. While admitting and deploring the facts of abuses in the past and in some European countries,—to a very limited extent also in America,—it is the conscientious belief of the members of the Academy that at present with us such abuses do not exist, nor are they in danger of occurring, to a degree justifying or calling for legislation, as, under the circumstances, the evils that would inevitably result from such legislation would greatly exceed the benefits to be obtained by it. The charge implied or openly made that physicians, either in theory or in practice, are more cruel than other classes of the community, is a fancy or prejudice of ignorance which cannot be proved, and which we strenuously deny.

3. Legislation upon the subject of cruelty to animals should be so framed as to include consideration of cruelties infinitely greater and more extensive in many other fields of human activity at present not actively objected to by those who urge legislation as regards experimental medicine. Not only this, but legislation concerning these matters should be broadened out in order to prevent the destruction of species of birds and other animals by the votaries of fashion, by the hunters, etc., to prevent derangement of the delicate balance of animal and vegetable life upon which civilization ultimately and largely rests, to prevent deforestation of the head-waters of our streams, to establish sanctuaries or resorts for animals, and many such

biologic requisites,—as also to establish such arrangements with other nations as will ensure their permanent and extensive effectualization.

4. Legislation upon a subject of vital importance to a peculiarly technical branch of science should be framed under the guidance and by the aid of those who by education and experience are alone fitted and capable of forming and expressing sound judgment upon it, *i. e.*, the experts in the special subject. It would be as absurd to have legislation as to vaccination, inspired and shaped by laymen who were anti-vaccinationists, without weighing the opinion of the medical profession, as to allow legislation upon the question of vivisection by laymen who are anti-vivisectionists, and even inexpert in any branch of inductive science.

5. The American Academy of Medicine therefore urges its members and physicians generally to write to their representatives in Congress, (or wherever legislation of the kind in question is proposed), and otherwise seek to influence public and official opinion against the passage of a particularly ill-advised bill before Congress, to wit, Senate Bill No. 1552, introduced by Mr. McMillan, entitled *A Bill for the Further Prevention of Cruelty to Animals in the District of Columbia.* In the opinion of the Academy the passage of this bill would be harmful to the true interests of medical and social science and to the public health.

Protonuclein in the Treatment of Anæmia.

In the March number of the *Canadian Medical Review* Dr. John Ferguson, of Toronto, relates the case of a gentleman, aged fifty-four years, who had resided in India for several years. His health had not been good for about two years. During this period he had suffered loss of flesh, strength, and appetite. In April, 1895, the symptoms became more distressing, and it was necessary for him to give up his work as a tutor and rest. He became a patient of Dr. Ferguson about the end of September, 1895. At this date he was a pronounced victim to insomnia. His digestion was extremely bad; he had much pain and frequent nausea after taking nourishment, either liquid or solid. There was an excessive amount of flatulence. The bowels were very torpid. The pulse was weak, and usually as frequent as 100 a minute. There was always some elevation of temperature, sometimes as high as 102°. Continuous headache was another feature of the case.

The lips and conjunctivæ were almost colorless, and the tongue was exceedingly pale. The skin had a pale lemon tint. The red blood-corpuscles were only 1,200,000 to the cubic millimetre. The urine was normal. No organic disease could be discovered anywhere in the system. In spite of all efforts at treatment and feeding he gradually grew worse.

Dr. J. E. Graham saw the patient in consultation. No other disease could be discovered than progressive anæmia. It was agreed to place him in some hospital for a time. He was admitted into the Toronto Western Hospital on January 7, 1896. Dr. Ferguson went with him in the coupé, and says he really feared he would collapse on the way. When he arrived at the hospital he was in such a state of exhaustion as to be unable to walk upstairs. On being taken into his room he became unconscious, and in this condition he was hurriedly undressed and put to bed with hot bags around him. In the course of an hour or so he gradually regained consciousness.

At this stage of his disease there were varying elevation and a subnormal condition of the temperature. He had intense headache and almost continuous insomnia. The bowels were constipated, and nearly everything in the way of nourishment was vomited. The patient was in a state of extreme emaciation and asthenia. There were frequently low delirium and confusion of thought. He often regarded himself as a duality.

On his admission the bowels were washed out daily with a large enema containing some boric acid. Daily he was given a sponge bath. The stomach was washed out every day except occasionally when he felt too weak. He was fed on peptonized milk, egg albumen, and beef juice. The headache continued, however, in a most intense degree, and there was no improvement in the insomnia. For the headache, acetanilide, phenacetine, salol, and other agents were employed, but with only the most temporary relief. Opium, chloral, paraldehyde, and sulphonal were administered from time to time for the insomnia. On one occasion thirty grains of sulphonal were given, with the result of causing only a few hours' imperfect sleep, followed the day after by much vomiting, great restlessness, extreme headache, and a feeble pulse.

He had been in the hospital a little over two weeks, and all the appearances pointed to an unfavorable termination of the case. He was now placed on the use of protonuclein (tablets), as prepared by Reed & Carnrick. The enemata, lavage of the stomach, and the same nourishment were continued. Tablets were given every three hours. By the third day it became apparent that the patient was improving. The headache was the first symptom to become modified. In a week it had almost wholly disappeared, and at the date of the report was entirely gone.

The sleep soon became better. By the end of the first week of the use of protonuclein, he would sleep three and four hours at a time. At the time of the report he could sleep from six to eight hours, and woke with a rested and refreshed feeling. The appetite was good; he could take eggs, meat, toast, porridge, oysters, beef juice, bread and butter, milk, and light puddings without the slightest discomfort. There was no nausea or vomiting; the bowels were quite regular, and no enemata or aperients had been administered for at least ten days. The temperature was constantly normal. The patient was gaining in flesh and could walk about the ward and in the hall for an hour and experience no ill effects. The lips and nails had a good color, and the tongue had lost its pallor. The abdominal walls, which had been extremely retracted, were now filling with adipose tissue.

The most marked change, however, was to be found in the red blood-globules. When the protonuclein was first ordered, there had been not quite 1,000,000 to the cubic millimetre. Now there were 3,500,000.

The progress of the patient had been one of daily improvement. He would leave the hospital in two or three days, when the same line of treatment would be maintained, with the addition of a mild course of massage to assist in the development of the muscles.

It ought to be mentioned, says Dr. Ferguson, that the preparations of arsenic and iron had been fairly tried in this case, and could not be tolerated in any form. During the three days preceding the date of the report, however, arsenic had been tentatively given, and so far had caused no disturbance, indicating an improved state of assimilation.

When the patient had been out of the hospital for a short time, the improvement still continued. The sleep and digestion were good, and the muscles were gaining rapidly in tone and size.—*N. Y. Med. Jour.*

Literary Department.

Under the charge of W. F. McNUTT, M.D., M.R.C.S.Edin., etc.
Professor Principles and Practice of Medicine in the Medical Department
University of California, etc.

TRANSACTIONS OF THE AMERICAN ORTHOPEDIC ASSOCIATION, Ninth Session, held at Chicago, September the 17th and 19th, 1895. Vol. 8th. 335 pages. Philadelphia: Published by the Association. 1896.

This society includes fifty-two active members, the greater number of surgeons who make a specialty of orthopedic work. In consequence the volume which is made up of thirty-eight papers is a valuable contribution to this branch of surgery. It is excellently well printed on good paper and illustrated with original cuts, which show deformities and the treatment thereof.

MEDICAL AND SURGICAL REPORT OF THE PRESBYTERIAN HOSPITAL IN THE CITY OF NEW YORK. Volume 1. 1896. Edited by ANDREW J. MCCOSH, M. D., WALTER B. JAMES, M. D. The Knickerbocker Press Co., N. Y.

This is the first report and contains some very interesting cases, medical and surgical. The management intends hereafter to make an annual report. Dr. George A. Tuttle reports some half dozen very interesting cases of tumors of the kidneys. Formulæ for preparations of dressings, sutures, sponges. etc., used in the operating pavilion. The chapters are all interesting and instructive. This report is certainly a valuable contribution to scientific medicine.

FORMULAIRE CLINIQUE. Formules Pratiques, Recuiellies a la Polyclinique de Vienne, Autriche. Traduit de la quinzieme edition et augmente de nombreux travaux originaux. Par le DR. SAMUEL BERNHEIM. Paris: A. MALOINE, editeur, 21 Place de l'Ecole de Medecin. 1896. For sale by the Book Department of the Emporium, Market St., San Francisco.

This is a capital little work for those who are familiar with the French language. In addition to the formulæ it contains many useful and practical hints on diagnosis, with a chapter on urinary analysis.

THE NATIONAL FORMULARY OF UNOFFICIAL PREPARATIONS. Revised editions. By authority of the American Pharmaceutical Association. Published by the American Pharmaceutical Association. 1896. For sale by the Book Department of the Emporium, Market St., San Francisco.

This book is a necessity for the druggist and the busy practitioner will find it not only a great convenience, but useful on many occasions. It contains many excellent formulæ, elegantly prepared.

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Original Articles.

SOME EXAMPLES OF DRUG AND FOOD ADULTERATION.

By G. F. HANSON, M. D., San Francisco.

(Read before the State Medical Society, Los Angeles, April, 1896.)

Since the memorable occasion upon which young Eve palmed off the green apple on old man Adam, more or less fraud in food handling has occurred, as opportunity offered and occasion for profit suggested. In the adulteration of drugs even more elasticity of conscience has been necessary to permit the almost unlimited sophistication which has been practiced from time immemorial.

We are told that in about the year 77 of the Christian Era, Dioscorides noted the adulteration of opium, or poppy juice, with gum and the milk of lettuce, etc.

Gum itself, both gum arabic and gum tragacanth, has, as is well known, been subject to substitution by cheaper gums for many centuries. Apple wood and mesquite gums are two of the more common substitutes in America, while in Nubia and Abyssinia almost everything in the way of sticks and dirt and bark and pebbles is thrown in to increase the weight. The gummy exudation from almond and palm trees serves a like office in the case of inferior grades of tragacanth. The dark caramania (or mosul) gum is said to be whitened with white lead before admixture with the tragacanth.

Among our common home remedies attention has lately been called to inferior or worthless specimens of powdered licorice, which were shown to be about as valuable as sawdust. Upon investigation it was ascertained that the drug had been *exhausted* for the preparation of the solid extract and ammoniated glycyrrhizin.

Peruvian bark, while seldom adulterated, is often about as destitute of cinchona alkaloids as so much tan-bark. Grahe's test, heating a little of the powdered bark in a test tube until a purple tar is seen if the alkaloids be present, is accurate and simple enough for any use.

Digitalis, which is generally prescribed with more or less suspicion that its effect may prove uncertain, is frequently substituted by mullein and elecampane leaves. Too much care cannot be exercised in obtaining the genuine leaf, and a leaf of proper alkaloidal strength.

Another drug which is liable to substitution is ergot, but fortunately, perhaps, the usual substitutes are generally considered as valuable as the rye fungus itself. That of wheat, for instance, has been claimed to produce less harmful effects and to keep better. That of the African (Diss) is said to be twice as active as the secale cornutum. The greatest trouble we need anticipate from ergot is from an inactive article.

Saffron is a drug of no medicinal importance which has been largely adulterated. Some of the samples are not saffron at all, but the florets of carthamus tincture or of calendula. Alicante or Spanish saffron is of interest because of its high price, $8 to $8 50 a pound, and this does not seem excessive when we consider that the stigmas alone are supposed to be gathered, and that it requires approximately fifty thousand of them to make a pound by weight. Naturally here is an opportunity for profiting by adulteration, and for this purpose the stigmas themselves are coated with particles of carbonate of lime properly colored.

Two articles, perhaps more often found spurious than genuine, are Venice turpentine and Burgundy pitch. The former is commonly substituted by a mixture of resin with oil of turpentine, and the latter by a melted combination of resin and fat with a little water to produce turbidity.

A record of the importations of balsam of copaiba for the years 1893 and 1894 gives a total into the United States of about 80,000 pounds for the former and 82,000 pounds for the latter year; while the annual consumption is given as something over 120,000 pounds. Gurgin balsam or East India wood oil is said to be the principal adulterant and easily detected by the greenish-violet tinge it gives in strong sunlight to a sophisticated sample of copaiba. Some of the para copaiba is said to be at times found in market from which the oil has been distilled. Paraffine or vaseline oil is another adulterant, separable by boiling with 95 per cent alcohol in a water bath.

Among roots, aconite is one found often to lack proper alkaloidal strength, due more commonly to lack of knowledge on the part of those who gather it than to intentional adulteration. As it is gathered in considerable quantities by peasants, sheep- and cow-herders principally, in the mountain pastures of Europe, little or no care is exercised as to condition, season or preservation. Senega root is found occasionally mixed with that of American ginseng with the rhizome of ladies' slipper.

A Siamese gum-resin, best known as an ingredient of compound cathartic pills, is gamboge, sometimes reaching the market with a liberal addition of sand, as well as of powdered bark of the tree (garainia), and even rice flour.

A domestic article in every-day use, flaxseed meal, occasionally contains a trace of rape or mustard seed, presumably an accidental addition in harvesting, as those seeds are worth more in the market than the linseed.

Intentional adulteration is frequently practiced by adding crushed wheat, bran, corn-meal, middling, etc. Ground oil-cake from which the linseed oil has been pressed, is, of course, the simplest result of questionable methods. The various wood chips imported as dye-woods and for medicinal purposes are naturally subject to admixture with the inert chips of other woods. The resinous heart-wood of guaiacum is most commonly mingled with the worthless sap-wood; quassia chips with those of other better woods or chips of like color, as of oak, etc. Brazil-wood chips frequently find their way into packages of logwood.

Among leaves buchu is said to meet with occasional substitution, both with inferior species of barosma and by entirely foreign leaves. Bales of senna frequently contain a considerable proportion of argel leaves, which add to the griping without increasing purgation. Bearberry leaves are often innocently mixed with those of the red whortleberry, for which they have been mistaken. Hyoscyamus niger is sometimes replaced by hyoscyamus alba, native along the north of the Mediterranean coast.

The inducement to adulterate oils, particularly the expensive essential oils, is very great. Oil of rose, for instance, often contains a greater or less proportion of indian grass or "geranium" oil. As attar of rose congeals and crystalizes at a temperature of 12.50 centigrade, the rose stearoptene which results is sometimes increased in bulk by the addition of spermaceti or some variety of paraffin. Peppermint, spearmint, cajuput, lemon, bergamot, cubeb and other oils undergo an amount of ingenious manipulation worthy of a better cause

Of the fixed oils the two having the largest sale at the highest price are easily the most enticing targets for fraudulent marksmen. Olive and cod-liver oils occupy that portion. The cheaper seed and nut oils are undoubtedly the kinds most used for increasing bulk and enhancing profits in the olive oil business. Cotton-seed oil formerly came first on the list of adulterants, but of late walnut, poppy, ground-nut, rape, mustard, benne and peanut oils seem to be superseding it. A wholesale druggist, of San Francisco, told me that his firm had to return a large consignment of supposedly imported olive oil because it turned out to consist largely of a cheap drying oil, believed to be peanut. Some years since the matter was considered of so much importance in Southern France that the Chamber of Commerce of Nice offered $9,000 for a method of detecting so small a proportion as 5 per cent admixture of seed oils with that of the olive. As California has sprung into the front rank of olive producing countries, self-protection demands that the purity of the oil should receive careful and constant official attention.

As to cod-liver oil, porpoise and other fish oils have been the favorite adulterants. Shark liver oil gives the cod-liver oil tests, but is of much lighter specific gravity.

The limits of a "paper" entirely preclude the possibility of touching upon all the phases of drug sophistication. A cursory glance at the methods employed has shown, in most instances, attempts at increase in quantity by the admixture of inert and cheaper substances without the use of deleterious materials. The cruder adulterants, as sand, pebbles, leaves, sticks, bark, etc., are usually from the hands of the native gatherers, who have neither the shrewdness nor the materials with which to do the "fine work" accomplished by their civilized brethren whose palms are affected with a pruritis for unholy shekels.

While engaged in personal investigation of the subjects here discussed we met with some very inferior and dirty fennel, anise and caraway seeds; some benzoin of which nearly a half was waste (sticks, stones and dirt); some powdered castile soap which was not a soda soap, as shown by its insolubility in alcohol; and some "gum" camphor in blocks or squares which contained a liberal percentage of paraffin.

Among other frauds lately unearthed were a number of barrels of yellow bees-wax manufactured on Harrison street from tallow hardened with spermaceti and carefully colored.

Drugs in their crude state offer of course far less opportunity for substitution than in the powder form, and drugs like spices which are extensively consumed as condiments display the widest range of manipulation. The business of grinding spices is one of such large proportions that the writer availed himself of his acquaintance with one of the largest dealers in the West to visit his mills while in operation. The better brands of spices appear to be pure. The merchant stated that such was almost universally the case, and naively added that the cheaper, inferior grades were "generally understood" to be adulterated with harmless substances and were sold with that implied understanding. Cocoa shells, bran, rolled oats, peas, beans, corn meal, flour, and the poorer quality of spices (pepper, allspice, cloves, cinnamon, etc.), were utilized in the lower grades.

Tea is said to suffer very little at present from the addition of foreign leaves, but too often contains much camellia thea of worthless quality, and even re-dried leaves which have been already used. The coloring matters of the various green and black teas are stated to be usually innocuous substances, added because of the general demand for the tea of finer appearance than is presented by the natural, fired leaf. Tea also acquires different tinges by different methods of firing, and again a black color from the addition of plumbago or a green one from sulphate of calcium and Prussian blue.

Coffee as a rule is only adulterated in the ground state, and then chiefly with chicory, cocoa shells, or roasted vegetables and cereals. The traditional bread crumbs are said to be too expensive to use as substitutes, in the presence of cheaper materials.

Fabricated strained honey, bottled from a comparatively thin syrup of glucose, is said to be universal in the groceries, the only concession toward a genuine article being the addition of a small proportion of the onput of the apis mellifica for the sake of flavor.

The contents of an average keg of "fruit stand cider" consist of a weak solution of cider-vinegar flavored with rose water and sparingly sweetened.

It is "within the memory of men still living" that some "enterprising" metropolitans attempted a few years ago to construct artificial "hen-fruit" that should be non fatally edible. That a "regular" physician should have been engaged in the scheme is merely testimony as to the over-crowding of the profession, and the straits to which the more elastically-conscienced are sometimes driven.

More recently systematic efforts to increase the butter product from a given amount of milk have been attempted in nearly every State in the Union. The final result of all the different secret processes, which were conducted chiefly by the aid of lactic acid and rennet when the milk reached the "souring" point, was merely the coagulation of the casein and its incorporation with the butter, thereby somewhat increasing its bulk.

The result of thorough milk inspection in San Francisco this (last) winter is too well known to require mention here, and merely shows conditions repeated somewhat as recorded as long as two hundred years ago in England. There the water with which the milk was diluted was known as "Simpson"—a precedent for applying the term Dockery-ed (abbreviated to docked) to our metropolitan milk supply.

The traditional sanded brown sugar has of late years given place to a liberally glucosed article, since damaged grains and weak acids are always cheap and plentiful.

A volume might be written upon the adulteration of wines and brandies, a subject of vital commercial importance to our State; but as I have already, perhaps, exceeded the proper limits of a supplemental report, I will conclude by hoping that our State Medical Association's influence may have legislative weight in behalf of stringent protection for pure food and medicine.

Dr Howard A. Kelly, in the *Johns-Hopkins Hospital Bulletin*, has expressed his complete confidence in sterilizing of catgut with cumol. His approval was, in effect, that we now have a perfect method of sterilizing catgut with cumol, boiling at 155° centigrade, and we can use the gut with perfect freedom without fear of after-trouble. We are, therefore, almost as well off as if we used torsion; we simply add a little absorbable animal substance which disappears in a few days when it has done its work.—*Med. News.*

THE HAWAIIAN ISLANDERS AND LEPROSY.

By WINSLOW ANDERSON, M. D., M. R. C. P. London; M. R. C. S. England, Etc.

The ancient condition of the Hawaiian islanders was like that of the natives of the South Pacific—especially those of Polynesia—to whose race they belonged.[1] It is estimated on the best authority that the islands were inhabited as early as 500 A. D.,[2] and probably much earlier. From this time until shipwrecked Spaniards were driven by the trade winds to the island of Hawaii in 1527, no definite knowledge of the inhabitants has been obtained. In 1555 the islands were discovered by Juan Gaetano, and again by Captain Cook in 1778.[3] Captain Cook estimated that in 1778 there were over 400,000 inhabitants. In 1832 there were only 130,000; in 1866 the population was reduced to 59,000, and in 1896 there are about 32,000 native Hawaiians. The causes operative in the extermination of this splendid race of islanders are acute diseases, such as measles, brought over by the early sailors and settlers. Oftentimes measles will kill off half of the inhabitants of a village when attacked. Intemperance, syphilis, and other vices are responsible for many deaths. The native medicine men, or "kahunas," play no small part in killing off these simple minded men-of-the-sea by their superstitious and barbarous methods of treating the sick. The total mortality of leprosy since its introduction into the islands has been only about 5,000.

Leprosy appeared on the islands for the first time in 1844, at which time several Chinese were found suffering from the disease. It is therefore known to the Hawaiians as *mai pake*, or Chinese disease.[4] The first case of leprosy among the native Hawaiians occurred eight years later (1852). At the present time (1896) there are about 1,200 lepers on the islands, of whom about 700 are males and about 500 are females, mostly native Hawaiians and half whites. There are a few Chinese, English, Americans, Germans, Portuguese, Spanish, South Sea Islanders, and one negro, suffering from the disease.

During the 22 years following the time leprosy first made its appearance on the Hawaiian islands the disease spread to an alarming extent; accordingly in 1866, during the reign of Kamehameha V, a leper hospital was established at Kalihi, Oahu, for the purpose of segregation and isolation. Later in the same year a leper colony was founded on the beautiful island of Molokai. Here on the north side, sheltered from the winds, is a fertile valley comprising some 5,000 acres. This valley is surrounded on the north, east and west by the ocean, and on the south by impassable precipitous mountains, 2,000 to 3,000 feet in height, formed by an extinct volcano. In this garden of the sea, with luxuriant tropical verdure, is the present site of the Hawaiian leper colony, where the unfortunate sufferers are surrounded by all the comforts the present enlightened Hawaiian government can give them. Here they live and die in sunshine and in peace.

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[1] Alexander. [2] Fernander. [3] Alexander. [4] Alvarez.

ORIGIN OF LEPROSY.

As with many other diseases and social conditions, it is somewhat difficult to determine when and where leprosy originated. It is probable, however, that leprosy arose in the Delta and Valley of the Nile in prehistoric times.[1] Leprosy was endemic in Egypt as early as 1,500 B. C., and existed in India, Palestine, Arabia and China. It was also endemic among the Hebrews when they migrated from Egypt.[2] Leprosy existed in Persia,[3] and the earlier Greek and Latin writers speak of the disease. In Greece and Italy we find it as early as the 1st century, B. C. The disease was probably introduced by the army of Pompey.[4] From thence it spread to the Roman colonies in Spain, Gaul and Britain. Charlemagne made laws regulating the marriage of lepers in the 7th century. In the 11th century we find the disease at Canterbury. During the crusades leprosy became epidemic in western Europe. It was estimated that at least 19,000 lepers existed in Europe at this time (1096 to 1271 A. D.).[5] Hospitals and lazarettos were established for the care and isolation of lepers all over infected Europe. Ninety-five such houses are recorded in England, Scotland and Ireland.[6] Bergen, Norway, established a hospital in 1277, and until late years had 2,000 inmates. Leprosy is met with even at the present day in many parts of the civilized world, from the frozen north of Norway and northern Russia to the sunny south of India and the Pacific Islands. Within the last six months a case was discovered on the streets of Paris and sent to the *Hopital St. Louis*, where there were already several other patients. The hospitals in San Remo and in Spain and Portugal are never without leprous cases. Turkey and the Ionian Islands are also infected. Crete alone has over 500 cases. In British India it is estimated that there are over 100,000 cases. In Japan there are 100,000 lepers.[1] 100,000 cases or more will be found in China. The province of Canton counts over 10,000 lepers.[2] South America and Africa are infected with leprosy so that it is impossible at present to ascertain the number of persons afflicted with the disease. It is safe, however, to estimate that no fewer than from 300,000 to 350,000 cases of leprosy exist at the present time in various parts of the world. Even San Francisco has a number of cases on hand most of the time.

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[1] Lucretius. [2] Lev. XIII. [3] Herodotus. [4] Pliny. [5] Matthew Paris. [6] Sir J. Y. Simpson.

CAUSE OF LEPROSY.

Temperature, climate, soil, race, habits and food have all been regarded as predisposing if not exciting causes of the disease.

That *temperature* has no obvious influence on the disease is manifest from the fact that leprosy prevails alike in Norway and India.

That *soil* and *climate* are equally inoperative is shown by the fact that it occurs on both marshy soils and at high elevations, both on the sea coast and inland regions, both on continents and on islands.[3]

Race and *habits* are not specific causes, as proven by the existence of the disease amongst persons of most diverse and opposite habits. The theory that a *fish diet* is a cause of leprosy has been disproven by the fact that the disease appears in many parts, such as the interior of Spain, for instance, where only the very wealthy can afford fish.

That leprosy originates from *cold* and *exposure*, and a want of *vegetable* diet is also erroneous because the greatest number of cases occur in warm climates such as India where clothing is never needed and where a vegetable diet alone is used.

The real *cause of leprosy* is undoubtedly the leprous bacillus—a small rod-like vegetable micro-organism similar to the bacillus tuberculosis. The disease is contracted by *inoculation*, actual contact of the mucous membranes or abraded parts of the cutaneous surface. It is *never hereditary*, as is generally supposed, but children may and often do contract the disease from infected mothers after birth. The most usual manner of inoculation in the Hawaiian Islands is found to be their method of greeting. When two friends or relations meet they first rub noses, then embrace and kiss. During this kissing process their lips are firmly pressed together and the tongue is protruded into each other's mouth. This form of salutation is no doubt responsible for the spread of the disease as much if not more than any other social custom or relation which exists. Another prominent method of propagating the disease is found in the manner the Hawaiians care for those afflicted with leprosy.

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[1] Ashmead. [2] Dr. Wong. [3] Bristowe.

"I found an unfortunate woman in a dark, low basement. She was paralyzed, blind, without fingers or toes, and had open ulcers on her arms and legs. Her friends fed her by conveying *poi*—a native dish not unlike bill-posters' paste—to her mouth with their fingers, and gave her water by taking a mouthful of it, fitting their lips to the leper's and transferring the water to her mouth. This disgusting manner of giving water to the sick still prevails in many Hawaiian homes where spoons are unknown. This leper woman was returned to the hospital at the leper settlement. Since then nineteen persons of her family and friends have developed leprosy, many of whom had been nursing this woman."[1]

Leprosy undoubtedly occurs from direct contagion—transmission of the bacillus of Hansen—from an infected person. All animals enjoy perfect immunity from leprosy, occasionally reported cases to the contrary notwithstanding, as the bacillus in these so-called leprous animals has never been demonstrated.

INCUBATION

The period it takes for the disease to show itself after inoculation averages about six to seven years.

DURATION.

The disease proves fatal in from 10 to 20 years.

PATHOLOGY.

It is not the object of this article to discuss the pathology of leprosy. Suffice it to say that three well marked varieties of the disease exist, viz.: tubercular leprosy, non-tubercular or anæsthetic leprosy, and mixed tubercular and paralytic leprosy. The tubercular variety is the most rapidly fatal, the patient seldom living more than from 8 to 10 years after the disease manifests itself.

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[1] Dr. L. F. Alvarez, in PACIFIC MEDICAL JOURNAL, January, 1895.

TREATMENT OF LEPROSY.

In such a chronic and fatal disease as leprosy it is small wonder that many different kinds of remedies have been tried. Excision of the primary lesion has failed as it has in syphilis, because the system is already infected before the primary lesion appears. Mercurials and iodide of potassium are worse than useless. Creosote, salol, salicylate of soda, gynocardic acid, quinine, arsenic, iron, gurjun oil and chaulmoogra oil have proven of benefit. For external use chrysarobinum, iodine, ichthyol, iodoform, europhen and pyoletanine have proven useful.

THE GOTO TREATMENT.

This consists in bathing daily in hot water in which are placed bags containing hichiyon bark, taifunshi, sulphur and yoku yaku. Internally he gives seiketsuren pills, tincture chloride of iron, quinine, strychnine, iodide of potash, gentian, columbo, carbonate of soda and potash, and Epsom salts.[1]

Goto during his many years of residence in Hawaii *failed* to cure a single case. "The proof is lacking that cure has been obtained in any case."[2] "Many of the patients reported by Dr. Goto as almost cured have since died of leprosy."[3] Several Hawaiian lepers have gone to Japan to be treated at Goto's leper hospital in Tokio. But after several years' treatment in that institution, "in some cases without even amelioration, convinced these Hawaiians that it was useless to remain in Japan, hence they returned home and were sent to the leper settlement."[4] "Dr. Goto's Japanese treatment has failed."[5]

From personal observation in the Hawaiian Islands, I am satisfied that Goto's so-called treatment is entirely empirical, without the slightest scientific foundation, and as every educated physician who has ever tried it, or seen it tried, confirms, it is absolutely without any merit in the treatment of leprosy. The so-called temporary benefit results merely from the cleanliness obtained by the frequent bathing and the tonic treatment which could better be established by scientific medicaments.

DR. ASHMEAD ON THE TREATMENT.

In speaking of a treatment for leprosy a noted leprologist, Dr. Albert S. Ashmead, says under date of July 19th, 1896:

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[1] Alvarez. [2] Dr. Emerson, Government Physician, Hawaiian Islands. [3] Dr. Alvarez, Honolulu. [4] Dr. Alvarez. [5] Dr. Ashmead.

"There are but three treatments to-day on which leprologists found their hopes, if they have any—the European treatment of Goldschmidt, the Carrasquilla treatment of Colombia, South America, and the Kitasato serum cure of Japan.

"Goldschmidt last December reported a case cured by the 5 per cent europhen in oil on the islands of Madeira. But as his report was made only five years after the alleged cure, no leprologist accepts it as authentic. Alvarez, the bacteriologist of the Hawaiian Board of Health, tells me that he used it in the Sandwich Islands without success.

"The Carrasquilla serum treatment was tried by Dr. Carlos E. Putnam, a pupil of Carrasquilla in the Aqua de Dios Leper Hospital of Colombia, on forty lepers without success. Dr. Putnam took blood from the arm of a sixteen-year-old tubercular leper in an aseptic bladder, let it remain there until it had settled, then drew the supernatant serum by syringe through the wall of the bladder and inoculated the serum into two asses and three she-goats. His object was, as he wrote me, to increase, if possible, the natural immunity of animals by the immunity which a leper might be supposed to have acquired in a degree proportionate to the age of the disease. I say might be supposed; but such an immunity, in any degree, is but an hypothesis.

"After several days blood was drawn from these animals, and forty lepers of different types and grades of disease were inoculated with the serum. This was done November 1st of last year. As yet no result has appeared.

"This treatment was first proposed in the Polyclinic of Bogota, July 1, 1895, by Dr. Juan de Dios Carrasquilla. It is built upon the theory that the leper bacillus can be cultivated in the blood current of an animal. No cultivation of the leper bacillus has ever been made in any other medium but the human tissue. The leper bacillus has never been found in human blood. Thousands of animals of all kinds—quadrupeds, birds, fish, etc.—have been inoculated, and no result was obtained. I, myself, a believer in the intermediary host-function of the fish theory, inoculated fish with the leper bacillus, but without success. Even human beings have been objects of this experimentation. In these cases, when leprosy followed, only after many years, it was, of course, impossible to say that it was due to the operation or to the development of the previously existing germ. So much for the Carrasquilla theory, which, as you see, was built upon the possible cultivation of the germ in the animal blood.

"Dr. Putnam's theory is founded on the possibility of increasing the natural immunity of the animal by inoculating it with the probable acquired immunity of the leper.

"The two theories are essentially different, although the application is the same for both.

"Dr. Jules Goldschmidt, who spent twenty-six years on the Island of Madeira, in charge of Portuguese lepers, writes: 'The Carrasquilla serum, or any treatment by serum, in leprosy is, according to my experience, perfectly inadmissible. Till nowadays—and there is not the slightest proof of the contrary—the Hansen bacillus has never been cultivated, and animals are quite 'refractaires.' How on earth can it be possible under such conditions to obtain 'a serum'? You remember what I said about 'leprine' in my book 'La Lèpre'? But this 'leprine' is to be compared to the 'tuberculine,' and has no affinity with a serum. There must be some fundamental misunderstanding regarding leprosy serum.'

"Dr. Havelburg, the bacteriologist of the Hospital dos Lazaros, Rio de Janeiro, says in a letter to me of date May 26th last: 'Regarding serumtherapy, I am thoroughly skeptical. In regard to leprosy, we hardly could talk of such as long as the culture of the lepra bacillus has not been made. Those experiments in Columbia, South America, appear to me to be very naive. I neither believe in nor trust them.'

"As to the Kitasato serum cure, it is not original, being simply based upon Behring's idea of the antitoxin diphtheria serum. No advance has been made, nor is likely to be.

"Dr. Goto's 'Japanese treatment,' which consisted of systems of baths, and tonic and eliminative treatment, has had a fair trial in Hawaii and has failed. Dr. Goto had been taken from Japan by the Hawaiian Government and given full opportunity to apply his methods.

"The antivenom 'treatment of Calmette and Fraser,' was never tried, but a treatment almost identical has been known in Japan for a thousand years. It consists in dissolving the snake *mamushi* in wine and using the dissolution internally. No favorable results were ever recorded.

"Dr. Carreau, of Guadeloupe, noting that a leper's skin became smoother after being bitten by a viper, which eventually killed the man, thought that by using a remedy that would act in the same way as the viper poison, that is, by increasing considerably the amount of hemoglobine in the blood, grand results might be obtained. He used the chlorate of potassa, a drug which has such an effect, but this also was unsuccessful.

"These are the only known remedies upon which, in late days, the hopes of leprologists were built." * * *

More recently (August, 1896), a Dr. Thomas Holmes, of Brooklyn, N. Y., described in the daily press as "an aged physician," has discovered a cure (?) for leprosy. He encloses his patient in a glass case into which he also introduces "certain gaseous vapors into the composition of which sulphur enters largely." This vapor is supposed to kill the bacilli. When it is remembered that before leprosy is discoverable there are already destructive ulcerations of the tissues or pathological affections of the nerves, the absurdity of the "cure" is at once manifest.

A POSSIBLE CURE FOR LEPROSY

exists in using the *antitoxin*—an alkaloidal extract—of the bacillus of leprosy itself. A year or more ago the present bacteriologist of the Hawaiian Islands, Dr. L. F. Alvarez, in discussing the subject with the writer concluded to try the *antitoxin* of the leprous bacillæ hypodermically at the leper station of Kalihi. This treatment I saw carefully and scientifically applied on the Islands during my recent visit, and if there are any scientific data for the use of vaccination as a protective against smallpox, Pasteur's treatment of hydrophobia, Koch's treatment of tuberculosis, Behring's and Roux's treatment of diphtheria, etc., then certainly leprosy may be benefited and possibly cured by using the *antitoxin* of the bacillus itself. One great obstacle is the separation of the *antitoxic* elements from the *toxic* elements in the leprous toxins extracted from the leper bacilli, but this can be overcome by patient investigation and I do not despair of finding a scientific remedy for this dreadful malady.

PROF. WILLIAM MACEWEN, Regius Professor of Surgery, University of Glasgow, will deliver a series of lectures on "Surgery of the Brain," at Cooper Medical College, commencing September 14, 1896. The lectures will take place daily at 11 o'clock, A. M., and continue for ten days.

ACETYLENE.

By C. O. SOUTHARD, Leland Stanford, Jr., University.

Although not a new subject, as so much interest has recently been aroused in it, a short account of this interesting gas may not be out of place at this time.

The first discovery of acetylene was made by Edmund Davy. While endeavoring to reduce the metal potassium from its salts he subjected carbonized tartar and charcoal to a high temperature, obtaining a grayish mass which gave off a gas possessing a pungent odor on being treated with water. He did not investigate this gas further, but called it *klumene*. Davy's work had been forgotten when, early in the century, the eminent chemist, Berthelot, rediscovered the gas and gave it its present name of *acetylene*. Considerable attention has been called to it recently by the discovery of a cheap method of production, practically the same as Davy's with the substitution of calcium for potassium and the electric furnace for the blast furnace.

Berthelot produced the gas in several ways—by passing the vapors of alcohol, ether, etc., through red hot tubes, by the action of the induction spark on Marsh gas, and by synthesis by means of a powerful electric arc having carbon points burning in an atmosphere of hydrogen, the hydrogen and carbon uniting directly to form acetylene. Ordinarily the gas has been obtained in the laboratory by dropping ethylene bromide into a boiling concentrated solution of caustic potash. All of these methods are too expensive to give acetylene a commercial value, but the discovery of a cheap method of production was hailed as the introduction of a new illuminating agent. The method is similar to that of Davy. Lime and some form of carbon are fused in the electric furnace when a grayish mass of calcium carbide is obtained. On treating this mass with water a large volume of acetylene is given off and lime, which may be used over again, is precipitated.

Acetylene is the first of a series of hydro-carbons. Its formula is $C_2 H_2$. That is, one molecule of the gas contains two atoms of hydrogen and two atoms of carbon. It has a specific gravity of 0.91 and may be condensed at $+1°$ C, under a pressure of 48 atmospheres, to a mobile highly refractive liquid. Water at 18° dissolves its own volume of the gas, while six volumes of absolute alcohol are required to dissolve one of acetylene. It is very combustible, burning with a smoky flame. Mixed with 2½ volumes of air it forms a violent explosive.

In the electric synthesis 61,100 heat units are absorbed, from which a rise of temperature amounting to about 3,000 degrees would be expected on decomposition. This cannot be easily brought about as the direct action of the electric spark does not affect the gas. It may be accomplished by exploding .1 gm. of fulminating mercury in 20 or 25 c.c. of acetylene, when a violent detonation occurs, the acetyline being separated into finely divided carbon and its own volume of hydrogen. Acetylene unites with the haloid hydracids forming ethidene compounds and with some of the metals, such as sodium, potassium, copper, etc., forming acetilides, most of which yield acetylene on being placed in water.

The value of acetylene lies in its power as an illuminant, as it gives, in proper burners, a light many times as powerful as an equal volume of coal gas. The discovery of the cheap method of producing the calcium carbide has placed acetylene on a commercial basis and extensive experiments have been carried on, both in this country and in Europe, with a view of placing it on the market. According to a recent French paper, the production of acetylene on the large scale is not so cheap as that of coal gas, while the reverse is true on a small scale. From this it would seem that while there is a great future for acetylene in country residences, cars, etc., in cities its use may be limited to enriching coal gas. It is expected that with the great electric power at Niagara the cost of the calcium carbide may be still further cheapened.

Various forms of apparatus have been designed for generating acetylene, all of which are on the principle of the ordinary laboratory generator, having a basket of calcium carbide in a tank of water arranged to be freed from the water as required, either automatically by the pressure of the gas or by lifting the basket out by means of a rod. Lamps have been made like ordinary oil lamps, having a gas generator in place of the oil tank. Apparatus has been designed to use with stereopticons, and for various scientific purposes requiring a brilliant white light. This illuminant ought to be of great value for throat work, etc., for physicians living where electricity or ordinary gas is not to be obtained.

Like a great many good things acetylene has some dangers, all of which are avoidable. The explosive power is greater than that of ordinary gas, but it is no more likely to explode under ordinary care. Brass should be avoided in pipes and burners as acetylene unites with the copper to form solid copper acetyline which explodes violently on percussion or on heating to 200° C. Minute quantities of acetylene have been found in coal gas, and in 1839 Torrey found this copper acetylide in gas pipes and fixures in New York.

There is an increase of danger from a leaky pipe or to the enterprising stranger who likes to blow out the gas,—that of poisoning as well as asphyxiation, the chances of recovery being quite doubtful if much gas has been inhaled, since the acetylene acts on the blood similarly to carbonic oxide, but less energetically.

A very recent application of acetylene has been in gas engines and from its great explosive power it seems as though there may be a great future for it in that line.

EARLY DIAGNOSIS OF BRIGHT'S DISEASE.

By P. WILLIAM NATHAN, M. D., San Francisco.

Penyold (*Munch. Med. Wochenschrift*, 1893, No. 42) found on examining the urine of forty healthy persons (mainly soldiers) that (with the usual tests) it contained no albumen and no red blood corpuscles. After bodily exertion, however, a trace of albumen was found in 12 per cent, and isolated but distinct hyaline, granular and epithelial casts were found in the urine after the use of the centrifuge in 16 per cent; besides, the white blood corpuscles and epithelial cells, which are present in the sediment of normal urine only in very small quantities, were found to be abundant. Red blood corpuscles were never present. It was found that certain food-stuffs, such as coffee, tea, horseradish, mustard and asparagus, when taken in quantity, were capable of producing renal irritation. Thus in persons whose urine had previously been found normal, the ingestion of these substances was followed by the appearance of red and white blood corpuscles and epithelial cells. From this he concludes that, inasmuch as the single ingestion of any of the above mentioned substances can produce slight and evanescent irritation of the kidney, their frequent, excessive or daily ingestion can produce, in those predisposed, a permanent lesion of this organ.

Important from a diagnostic point of view is the fact that in individuals suffering from nephritis, who previous to examination have refrained from bodily exertion or the taking of these food-stuffs, especially alcohol, capable of irritating the kidneys, albumen may be completely absent from the urine. Hence the importance of frequent examination of the urine (chemically and with the microscope) continued over long periods becomes apparent.

M. Germain Sée (*Bull. l'Acad. Med.*, 1893) emphasizes the fact that albumen will be found in nearly every case of nephritis if the urine is carefully and frequently examined. That there are, however, cases extremely rare, at most, in which it may be absent for a long time he, as well as Senator (*Die Erkrankunger der Niere-Handb. der Spec. Path. u. There. her. von Nothnagle*), and most authors admit. However, the symptom-complex said by Dieulafoy to be indicative of the little Bright's disease (*le petit mal de Bright*), auditory disturbance, various paræsthesias, frequent micturition without polyuria, sensation of cold, Sée does not consider characteristic inasmuch as they may be present in a number of nervous disorders.

For the diagnosis he recommends testing the urine as to its toxic properties, according to Bouchard. An apparently normal urine may have completely lost its toxic character, and as this would denote a retention of the urotoxins within the body, a dangerous condition would be indicated. According to Sée, there is in this condition faulty alimentary absorption, and due to this increased formation of nitrogen in the intestine, and at the same time diminished elimination of urea by the kidneys. Consequently there is retention of urea within the tissue. The importance of the quantitative analysis of the urea, in this, as well as in other forms of nephritis, therefore needs no comment. The failure to obtain definite results in examining urine for albumen, I think, is due, in most cases, to the insufficiency of the tests used for its detection, and the lack of care with which they are performed. The heat and nitric acid test, which is in most common use, is unreliable at best, and Heller's test, less frequently used, is apt to mislead those who are not experienced in urinalysis. Ott (*Deut. Arch. f. klin. med.*, Bd. LIII) tested the relative merits of the sixteen reagents now in use for the detection of albumen. He found the reagents of Spiegler to be the most reliable and sensitive.

This test is as follows (*Spiegler Wien. klin. Wochensch.*, 1891): The reagent consists of hydrarg. bichloral 8.0, acid tartar 4.0, aqua destill. 200.0, sacch. alb. 20.0. The addition of sugar is for the purpose of raising the sp. gr., as the reagent is used similarly to the nitric acid in Heller's test. A test tube is half filled with the reagent and the urine after precipitating the carbonate with acetic acid, and if necessary filtered, is poured drop by drop down the side of the tube so as to form a layer over the contained fluid without mixing with it. In the presence of albumen a sharply-defined whitish ring is formed at the boundary line between the two fluids. The reaction is also to be obtained in urine which contains bacteria; here the ring is readily distinguished in the general cloudiness. Mucin, which is not entirely precipitated by acetic acid, and propepton (not pepton) also produce the reaction. It is extremely delicate, showing the presence of one part of albumen in 150,000; and if the fluids be allowed to stand for a moment, of one part in 250,000. Because of the instability of the reagent Spiegler has recently recommended the substitution of glycerin for the sugar, which removes this objection and in no way impairs the delicacy of the test. The salycil sulphate is almost equally as good, is easy of execution, and has the advantage of differentiating between the serum albumen and pepton or albuminose. A concentrated solution of salycil sulphate in water gives, with acid and albuminous urine, either a cloudiness or precipitate, according to the amount of albumen present. If the urine contains peptone or albuminose it clears on heating, becoming cloudy again on cooling. In order that the test should be successful the urine must be acid; if, therefore, it is not so naturally, acetic acid should be added.

To GET rid of the odor of iodoform Herr Apotheker Konteschweller, Roumania, advises (in the *Pharm. Centralb.*), the use of an alcoholic *hexamethylentetramin* solution, with which he claims it necessary merely to moisten the hands or the article affected. A "grundliche Enternung des lastigen Iodoformgeruches" is the result—which means that the odor disappears in the presence of that of the solution named. What an odor of its own it must have ! though the name is almost enough to scare anything away.—*Scientific American.*

Sections.

MEDICINE.

In charge of SAM'L O. L. POTTER, M.D., M.R.C.P.L.

Glandular Extracts in Uterine and Ovarian Disease.—Dr. Robert Bell, Senior Physician to the Glasgow Hospital for Diseases peculiar to Women, presented to the British Gynecological Society, on May 14, 1896, notes of thirteen cases of uterine and ovarian diseases successfully treated by the internal administration of extracts of the thyroid, mammary and parotid glands, administered in the forms of elixirs and tabloids (palatinoids). There were cases of carcinoma of the cervix uteri, which were restored to health by the use of thyroid elixir. Two cases of uterine fibroid received tabloids of mammary gland extract for several months, resulting in the marked decrease in the size of the tumors and apparent restoration to health. In six cases of enlarged and tender ovary, some of which showed also metrorrhagia, chronic endometritis, dysmenorrhœa, leucorrhœa, etc., the administration of parotid gland tabloids brought about steady improvement in all and complete recovery in most of the cases. Two others, presenting menorrhagia, dysmenorrhœa, and enlarged and sensitive uterus, were restored to health by the steady use of mammary gland tabloids. In a few of these cases curetting was done, and in most of them ichthyol tampons were also used.

The influence of the thyroid gland in maintaining a healthy condition of the skin, mucous membrane and subjacent connective tissue is well established by the occurrence of myxœdema when this gland is incapacitated from performing its normal functions, and by the beneficial effect which thyroid extract exerts upon the epithelium of the skin when psoriasis is present. From this fact the author was led to conclude that it might be equally useful in the treatment of unhealthy mucous surfaces, which in the case of the cervix uteri may be justly considered the predisposing cause of malignant disease. The parotid gland exerts a most powerful influence upon the ovaries, and the writer vouches for the fact, that when disease exists in the latter, it can be brought under subjection by the administration of parotid glands of healthy young sheep, calves and pigs; and is beneficially influenced by the ingestion of mammary gland. It is also beyond dispute that fibroids of the uterus, as well as hyperplasia and flaccidity of that organ, can be most beneficially affected and brought under subjection by the employment of the mammary glands of healthy animals.—(*International Med. Mag.*)

Affinity between Skin and Joint Diseases.—Recently, at the Medical Club of Vienna, Dr. Hertz expressed his surprise that so little had been done to unravel the difficulties which lie in the path of elucidating the connection that exists between skin diseases and affections of the joints. Many of us have observed the pathological changes that take place after a diffuse invasion of psoriasis, which appears to be so frequently noticed in France as to merit the term of "Psoriasis Arthritica," applied by French writers. Hertz, at this point, showed a severe case of psoriasis which he had under his care, in which reddening, swelling, and great pain was experienced in the smaller joints, which subsequently led to stiffening of the joints, deformity, and latterly partial ankylosis. At a later period of the history a dropsical condition of the knee and ankle-joints supervened. In a second case which he recorded, which was a relative of the previous one, the patient first complained of great pain in the finger-joints, which later spread over all the other joints and was evidently of an inflammatory nature. Complete atrophy of all the muscles involved subsequently ensued. The skin during this time evolved enormous quantities of perspiration, presumably demonstrating the nervous influence between the skin and the joints. The third patient brought forward suffered a long time from fever, which later developed into pleuro-pneumonia, but subsequently passed into a morbid condition of the joints with complete ankylosis in many of them. There was also muscular atrophy with periarticular enlargements. The skin on the terminal phalanges of the fingers assumed a firm thick covering which could be taken off like the finger of a glove, leaving a raw bleeding surface.

It must be confessed that the pathology of psoriasis is not yet clearly understood, and therefore cannot be confidently associated with the joint affection. Still it must be confessed that there is a strange concurrence of clinical phenomena which leads us to presume that there is an infectious element in the disease, though this has not been definitely proved. The general disturbance of the nervous system as well as of the psychical centres are common clinical observations which have led to the belief that psoriasis is a vascular neurosis which may probably affect the joints as a trophic neurosis. From these clinically observed facts it would appear that a relationship exists between the joints and many of the chronic skin diseases, not yet clearly understood.—(*Med. Press and Circ.*)

Lumbo-abdominal Palpation.—Prof. Bard, of Lyons, has called attention to this method of diagnosis in peritoneal effusions. The patient is placed in a sitting posture, bending slightly forwards. The examiner places one hand on the back in the situation of the quadratus lumborum, close to the vertebral column. His other hand is placed on the various parts of the abdominal wall in front which he desires to examine. The impulse transmitted by the impact of the hand placed posteriorly is felt with ease and clearness by the anterior hand when ascitic fluid is present, just as it is in palpation by the ordinary method. The transmitted wave is felt badly, or not at all, from before backwards, except in extremely abundant effusions. The pressure therefore is to be made always with the posterior hand, from behind forwards. The method is capable of detecting very early and slight effusions, inaccessible to other procedures, if the anterior hand be placed low down on the hypogastric region just above the pubis. It is also particularly useful in cases of extreme ascites, where the tension is such as to prevent the palpation of the peritoneal contents. Where solid masses are interposed in the trajectory of the lumbo-abdominal wave, it is not perceived, or is extremely feeble. In such a case, the wave may be clearly perceived on one side, and be completely absent on the other; while the ordinary anterior method fails to distinguish any difference between the two sides. In this manner, there may be gained a knowledge of the existence of a solid mass in the peritoneal cavity; and various modifications of the method may be employed for the differential diagnosis of ovarian cysts and other intra-abdominal collections of fluid from peritoneal effusions.—(*Sheffield Quart. Med. Jour.*)

Resorcin in Infantile Diarrhœa.—Dr. Fenwick divides into two classes the more important antiseptic drugs adapted for medicinal use in intestinal sepsis—those soluble and those insoluble in water. These two classes are separated by yet other characteristics than that of solubility or insolubility in water. Those drugs which belong to the former group possess germicidal and toxic properties in direct proportion to the dose in which they are administered, while those of the latter group remain almost unaltered in the stomach, where they exert but little influence on the fermentation processes in that organ. The decomposition which they undergo in the intestines often results in highly poisonous products.

The drug of Dr. Fenwick's choice is *Resorcin*, and for the following reasons: (1.) It is extremely palatable to children. (2.) It is devoid of toxic properties, differing in this respect from carbolic acid. (3.) It is very inexpensive. (4.) He has found it highly satisfactory in a large number of cases of intestinal dyspepsia in infants and young children, concerning 120 of which he gives interesting and convincing statistics. He adds that in those chronic cases where follicular ulceration of the large intestine exists the drug may be supplemented by such remedies as Benzol-naphthol.—(*Brit. Med. Jour.*)

Diuretic Medication.—Prof. Huchard believes that in the future we shall place more reliance on diuretic medication than we do at the present, and emphasizes the importance of the functions of the kidney in the elimination of the toxins which may be either produced by or received into the organism. For therapeutic purposes he classifies diuretics according to their modes of action into those which act mechanically and those which have a direct action upon the kidney. Mechanical diuretics may act by directly increasing the blood pressure, and as a consequence the rapidity of the stream through the glomeruli. Digitalis is the type of this class. Water and aqueous drinks which act by increasing the volume of the blood and thus indirectly rising blood pressure, form a second sub-division. Diuretics which have a direct action on the renal epithelium may be divided into those which merely stimulate the function of the renal cells without altering it, and those which produce diuresis by bringing about more or less congestion of the kidney. As types of the functional epithelial diuretics may be mentioned milk, lactose, theobromine, asparagus, dandelion, etc., while juniper and cantharides belong to the class of epithelial irritants and should be seldom employed. Dr. Huchard draws special attention to the value of Theobromine as a diuretic. He states that it has little action on the nervous system, its toxity is very slight even in large doses, it has no action on the heart or arteries, and while its diuretic action is more prolonged than that of caffeine, it is apparently not liable to irritate the kidney in its elimination. It is indicated in dropsies of cardiac origin, and in some cases of Bright's disease. He recommends it to be given in cachets containing half a gramme each, of which eight may be given on the first day, six on the second and third days, and four on the fourth day. Under this treatment there is a rapidly increasing diuresis. It is sometimes serviceable to combine in the cachet an equal quantity of neutral phosphate of sodium. Diuretin he considers to be an uncertain product and less active than theobromine.—(*Jour. des Practiciens.*)

Ovarian Substance in Climacteric Troubles.—Professor Landau has been treating climacteric troubles by the administration of ovarian substance, and an account of his work has been published by his assistant, Dr. Mainzer. The remedy was used not only in pains due to the natural climacteric period, but also in the case of women whose ovaries had been removed by operation, in amenorrhœa from prolonged lactation, and in hysterical subjects. The patients who had reached the climacteric age complained principally of sensations of fullness in the head, occurring many times during the day, pains in the back and legs, &c. The dose varied from a gramme to a gramme and a half (from fifteen to twenty-two grains) administered in the form of tablets containing each half a gramme of the ovaries of pigs or cows. After two or three days the sensations of fullness in the head were said by the women to be much less frequent; within a fortnight they had almost totally disappeared. To avoid the influence of suggestion tablets containing none of the substance were given from time to time, but the symptoms immediately reappeared and the patients felt worse. The effect, however, lasted only while the ovarian substance was being taken; and when it was discontinued the symptoms returned after a time. A remarkable effect of the treatment was that in two cases of amenorrhœa it produced a sanguineous discharge from the genital organs. Professor Landau believes that disorders of the vasomotor system due to extirpation of the uterus or ovaries or to the approach of the climacteric period are benefited by the administration of ovarian substance; that its emmenagogue properties, if any, require further investigation, although it acts as a palliative in primary and secondary amenorrhœa; that its good effects are only temporary, and that in general neurasthenia or hysteria it is inert.—(*Lancet.*)

Thyroid Gland in Skin Diseases.—Since the discovery of the therapeutic effects of the thyroid gland in myxœdema it has been extensively tried in other diseases with varying results, but seems to have effectually established itself as a valuable agent in certain affections of the skin, and the disease which it most successfully combats is lupus. Many cases which have lasted for years and have been subjected to every kind of treatment improved wonderfully under the influence of thyroid gland. The nodules tend to disappear and a thin, superficial scarring takes the place of the diseased tissue. Whether the effect is really permanent or temporary time alone and reports of cases which have been carefully watched over prolonged periods can prove, but it is certain that in very many cases there is much temporary benefit obtained. The difficulty in prescribing it for any length of time is on account of the well-known constitutional effects which the gland may produce, and this often necessitates a break in the treatment, even though a local improvement is taking place. Thyroid gland is said to be beneficial in some cases of psoriasis and eczema, but results in these diseases have not been very satisfactory.—(*Lancet*)

Diet in Epilepsy.—Dr. Haig deals with the effects of diet and drugs on epilepsy, which, he thinks, are due to the differences they produce in the excretion of uric acid. Dieting in epilepsy is an old therapeutic measure which has probably often a distinct influence in individual cases depending on various idiosyncrasies of which we know little; although it must be confessed that some authorities have met with people in whom a strict diet seemed to increase the number of fits. The object of this mode of treatment is to cut off nitrogenous food, and so to limit the amount of uric acid in the system, and Dr. Haig thinks that this treatment has been a failure only because it has not been carried far enough, and he quoted various cases which show how many uric-acid-forming compounds may be overlooked in a diet which at first sight appears to contain very few. Without going so far as to believe that uric acid and epilepsy are in such direct relations as cause and effect, which is the view Dr. Haig holds, it is conceivable that in predisposed persons an excess of uric acid in the system might act as the exciting cause, and so, therefore, in many cases it might be worth while to try the effect of such a strict diet as Dr. Haig advocates in the hope of at any rate diminishing the number of fits.—(*Brain.*)

Sodium Hyposulphite in Diphtheria.—Dr. Wickers has for some time been using a solution of sodium hyposulphite as a local application in diphtheria and has been well satisfied with the results, three or four applications having generally been sufficient to clear away the false membrane. The solution is prepared for use by mixing equal parts of pure glycerin and a saturated solution of hyposulphite of sodium in water and is applied with a brush to the exudation and inflamed fauces once or twice daily or as often as may be deemed necessary. The glycerin by its adhesiveness keeps the solution longer in contact and also by its well known local action helps to relieve that engorgement of the mucous membrane which seems especially favorable to the growth of exudation. It is probable that the hyposulphite has a continuing action as a germicide in the following manner: chemical decomposition is first set up by contact with the acid secretions of the mouth and throat, sulphur and sulphurous acid in a nascent state being set free; the latter being gradually converted by oxidation into sulphuric acid would in the same manner decompose further portions of unchanged hyposulphite, and so on until the hyposulphite was exhausted. Of course, this local treatment will not interfere with the general treatment, which must be adapted to the necessities of each individual case.—(*Lancet.*)

OBSTETRICS.

Under the charge of D. A. HODGHEAD, A. M., M. D., San Francisco.

Anæsthetics During Labor.—It has for some time been conceded among obstetricians that the best anæsthetic to be used during labor was chloroform. Directly unfavorable results were seldom noticed, and the occasional indirect result of hemorrhage could with care be prevented; and its action was more rapid and less unpleasant than that of ether. Bukoemsky has recently conducted a series of experiments to determine whether chloroform or ether renders labor painless, and why, what effect ether has upon the contractile power of the uterus, upon the strength and frequency of the pains, and the intervals between them, upon the dilatation of the os, and upon the abdominal pressure. He investigated their influence upon the kidneys, the respiratory organs, pulse, temperature and general condition. In the puerperal period he examined the loss of blood, the involution of the uterus, the lochia and the secretion of milk, and noted also the effects upon the child and the frequency and degree of icterus neonatorum. The following conclusions are drawn:

Ether.—Ether diminishes the painfulness of uterine contractions in all cases, and generally makes painless the actual birth of the child. Its anæsthetic effect is most marked during the expulsive period, if the patient has been already partially under its influence. It does not prolong labor, but on the contrary seems to shorten it in primiparæ about one hour. It increases the force of the uterine contractions, as shown by the tokodynamometer. It does not lessen the length of the pains, but shortens the intervals between them. In a few cases there were irritative symptoms at the beginning of its administration, but these soon disappeared. The course of the puerperal period is remarkably favorable after ether; in primiparæ and deutiparæ the lochia earlier became serous, involution began more promptly and proceeded more rapidly than without ether. In multiparæ serous lochia appeared a day or two later. Hemorrhage did not occur in any case. The general comfort of the patient was not lessened, and there was no respiratory trouble, in fact there seemed to be no noteworthy effect upon the pulse, temperature or respiration. The swelling of the breasts was less in some cases, and the establishment of the milk occurred later. The general effect upon the secretion of milk was not unfavorable; in some cases the quantity seemed to be increased. Even in larger doses ether had no unfavorable effect on the fœtus, which was in no case dull or narcotized when born. Icterus was less common and severe, and the loss of weight was less during the first week. The best time for the administration of ether seemed to be when the os was dilated to the width of three finger-breadths; it seemed to have no effect upon the early dilation of the os.

Chloroform.—Small doses did not diminish the contractile power of the uterus. In the majority of cases examined the pains were shortened eight seconds, but in a few they were lengthened eight seconds. The intervals between the pains were generally lengthened 13 to 49 seconds. Although chloroform generally protracts labor somewhat, it seems to have no ill effect upon the mother when given in small doses. It is pleasanter than ether, but in a few cases slight irritative symptoms were noticed at the commencement of chloroform-narcosis. It had no unfavorable effect upon the puerperal period, and in no case did hemorrhage occur when it was used in small doses. The children seemed unaffected by it, and a mild icterus occurred in about half the cases. The best time for administration is the same as for ether.

In comparing the action of ether and chloroform it seems that ether is generally preferable, because it has less toxic effect upon the organism and does not produce such ill effects as chloroform if it has to be given in a relatively large quantity or for a length of time. Moreover, it shortens labor and has a more favorable effect upon the puerperal period and upon the fœtus. As most of these patients were delivered at night, and a common coal-oil lamp was used in the room, there need be no fear of ether taking fire or exploding if ordinary precautions are used.

From these observations it seems clear that either anæsthetic may be used in ordinary cases of labor, if given carefully and in small doses, without injuring mother or child, and without causing hemorrhage during the puerperal period. It is equally certain that chloroform may predispose to hemorrhage, and to the injury of both mother and child if given in too large doses, or for too long a time. Chloroform should be selected when complete relaxation of the soft parts is required, or when there is much spasm to overcome. Ether is preferable when deep anæsthesia has to be maintained for some time, or when there is severe cardiac trouble, or when some operation has to be done at the conclusion of labor, such as the repair of perineal laceration or the removal of an adherent placenta. When chloroform has been given for some length of time during labor, the child is apt to be lethargic when born and does not begin to cry without considerable stimulation.

THE ninth annual meeting of the American Association of Obstetricians and Gynecologists will be held at Richmond, Va., Tuesday, Wednesday, and Thursday, September 22, 23, and 24, 1896.

PROF. EDWIN KLEBS has been elected to the Chair of Pathology in Rush Medical College. This college has recently been recognized by the Examining Board of the Royal College of Physicians and the Royal College of Surgeons, of London, England. This recognition entitles its alumni to all the privileges accorded to the graduates of other institutions recognized by that board.

GENERAL DEMOGRAPHY AND CLIMATOLOGY.

Under the charge of P. C. REMONDINO, M. D.,
Member of the American Public Health Association, of the American Medical Association, of the State Board of Health of California, and of the Board of Health of the City of San Diego.

Suicide and Longevity and Climate and Poverty.—Northern latitudes produce stalwart frames, and mountainous regions develop men of deep chests and of sturdy limbs, but for compact, long-lasting, fatigue and weather-resisting and easy-going properties, no region can compete with the mild climate of the south of Europe. Spain, France and Italy, and boggy but even-climated Ireland, are the nations most favored as to longevity. It should be said, however, that this favoritism only exists in parts of those countries. The valley of the Po in northern Italy and the adjacent regions of the Apennines, the southerly parts of France, from the Alps to the Bay of Biscay, and the lower lying regions of Spain, are those wherein longevity thrives the best. To obtain these results requires a peculiar combination of climatic, racial and social factors. Agricultural pursuits, a mild climate, even if moist, an easily-satisfied and not-over-ambitious disposition, not being over burdened with wealth, and temperance in enjoying the good things of this life as they come in one's way, all favor longevity.

In Napoleon's campaigns, whether in that of 1806–7, or the later disastrous one of 1812, it was remarked that the contingent from southern France, along with those of northern Italy and Spain, were those who stood the best against the severity of the Polish and Russian winters.

Late statistics, gathered by a German statistician, gives Germany only 78 centenarians, France 213, while Spain with a population much less than that of Germany has 401. Belgium has only 6. The Belgians are a hardy, strongly-constituted and muscular people, but do not seem to endure cold, privation or fatigue—or the general wear and tear of life—on an equal degree with their slighter physiqued and not so stubborn southern brother Europeans. Baron Larvey mentions that in the Russian retreat out of a regiment of grenadiers numbering 1,787 officers and men, composed of natives of the low countries, only 42 returned to their homes, whilst two other regiments of grenadiers composed of men of southern France lost but very few men. In that retreat, although subjected to equal exposure and danger, the northern troops suffered the most. A constitution favorable to longevity is also the one to stand great wear and tear, as well being one that easily throws off grief and makes the best of a bad bargain or a bad situation. With all of his strong physique, plethora, hard headedness and general tenacity, the low-country-man is no match for a long-winded contest against time, joy or adversity when pitted against the Irishman, the Spaniard, the Portuguese, the southern French or the northern Italian. Think of Belgium with one-third of the population of Spain, Belgium having six millions to Spain's eighteen, only having six centenarians—one to the million—while Spain has 401, whereas, at the Belgian rate, it should only have 18. Then again the Belgian or Flemish suicide rate is 98 to the million annually, while that of the Spaniard is only 17, again showing climatic influence on factors that influence the duration of life. No wonder that the third regiment of grenadiers of the Guard only returned 42 of their whole effective to Belgium after Moscow and the retreat.

Ireland with a population of 4,704,750 souls, and an annual suicidal rate among the smallest in Europe—only 10 to the million—gives 578 past centenarians. Scotland has a suicidal rate of 35 to the million, a population of 4,025,647, and only registers 46 centenarians. England has a population of 27,483, 490 souls, and only 146 centenarians, with a rate of some 65 suicides annually to the million. Denmark, the classic land of suicides, with a population of 2,172,205 souls, can boast of only two centenarians who have escaped the severity of its winters, and of its summers, as well as from the general propensity that the Danes exhibit to commit suicide, which, with them, amounts to over two hundred and sixty to the million.

Switzerland, the home of those old sturdy Helvetians, that so worried the Romans, as well the country of those hard hitting pikemen that wore out Charles the Rash and his mailed Burgundian chivalry, as well as they humbled the haughty Austrians, the land of mountain and lake, of valley and of glaciers, where tourists from all parts of Europe love to wander to regain their lost health and ebbing vitality, is not noticeable for centenarianism, in fact, out of its three million of hard-headed, well-to-do, and honest inhabitants, it cannot, at present, count a single one that is living who is a centenarian. Its fitfully erratic climate, however, assists very materially in creating a large suicidal record which worries its statesmen and scientific men, as the rate is about 150 to the million.

Wealth does not seem to figure in very largely as a factor of longevity or as a preventive to suicide, as the Irish and Spanish centenarians—between whom there exist strong racial relationships—are among a people who are about the poorest off in the whole of Europe, and yet they furnish the smallest average rate of suicides, and the greatest number of centenarians.

Rapid Increase of Crime in the United States.—By the coming year, the United States will be in the lead in the comparative international statistics for homicides. Starting ten years ago with a population of about fifty-seven millions, of which nearly seven millions were of foreign birth, and 1449 cases of homicides, we had at the end of last year, with a population of 71,197,652, reached a homicidal record of over 8,000. In June of 1895, out of 82,329 prisoners in the various jails and prisons, 7,386 were for homicide. Of these 2,739 were negroes, 1,213 were foreigners, and 137 were Chinese and Indians, leaving 3,247 murders to the account of native white Americans. As strange as it may seem, 1,282 of these homicidal prisoners were total abstainers, and 5,659 of the whole number were in actual employment of some sort at the time of the commission of the crime. Out of the whole, 1,267 were drunkards, 600 were ill, 283 insane, 24 blind, 14 deaf and mute, 263 were cripples, and 18 were idiotic.

The large proportion of negroes does not give a fair comparison of the actual comparative state of criminality between the whites and blacks, as the number of prisoners given is the results of convictions alone, something which a negro could hardly escape if once accused of a crime, provided he is lucky enough to escape the inevitable lynching that follows quickly in his case, on the least suspicion or implication of some order with the crime. That many negroes confess does not stand as positive evidence that they actually committed the crime, or were in any way connected with it, as jurists and criminologists attach very little importance to these confessions, as their veracity or reliability are at all times, for psychic reasons, something that is most questionable. On the other hand, many white men who richly deserve hanging, altogether escape even a conviction for manslaughter. Indians, Chinese, and uninfluential or unimportant foreigners seldom escape conviction when deserved, and where the death penalty is permissible it is generally meted out to these if deserved.

One discouraging feature is the presumably better class of native born Americans that either commit a homicide, or become a party to it; it is a very unusual occurrence elsewhere to see medical or dental students convicted of useless murders, although in the past years the United States have been disgraced by such murders at hands that should, presumably, be not only intelligent, but highly civilized, and altogether outside of the paths followed by the ignorant criminal. Webster's killing of Parkman, many years ago, by a blow on the head with a grape-vine, was unpremeditated, and the death of necessity the result of accident. Webster, nevertheless, paid with his life the full penalty for his loss of temper and shrouding of judgment. This case of homicide cannot, however, in any way be compared to the deliberate and senseless murders of Blanche Lamont, Minnie Williams, Pearl Bryan, Mrs. Carlyle Harris, or to the many other murders of the same class which have occurred of late years. There is a growing indifference to the rights of others, to the sacredness of human life, or as to its value, as well as an utter sense of irresponsibility and disregard of all law, that will soon require closer study and attention than what has been bestowed upon it. Crime has climatic, racial, and social factors, which are retroactive, and the rapid increase of homicide in our country should warn us that for some reason these causes are now very actively at work upon our population, and that we have lost valuable time in not heeding or studying the subject, and in not adopting timely preventive or repressive measures.

In France where lynch law is never practiced, the legal executions now average only 30 annually. In the United States we had for the first ten and a half months of 1895, 113 legal executions and 160 cases of lynchings, a total of 273 executions. In 1894, the legal executions were 112 and the lynchings were 165. For the last ten years the total of the legal executions was 917, and the lynchings amounted to 1,495 for the same period—an annual average of 241 combined legal and popular executions per year. The great number of popular executions or lynchings shows a combination of want of confidence and a disregard for the laws on the part of the perpetrators of the acts. The tendency of the continuance of these lynchings is to breed an undesirable anarchical element that can serve no good purpose, besides increasing and hardening to the taking of life that is altogether out of touch with modern civilization, and which is too much in keeping with the usages of primitive society and cannot help but lower the moral tone of the people that permits its common application on the least provocation.

Many of these lynchings have for their warrant and defence the confession of the lynched, who admitted the commitment of the crime for which they suffered. English as well as American jurists have, in regard to the average confession, long ago recognized that "the position of an accused person is, of itself, apart from all extrinsic influences, wholly unfavorable to freedom of thought and act." Now, this applies to an accused who is under arrest and accusation, but whose immediate as well as future is protected by the force of law. How much less responsible are the thoughts and acts of an ignorant and cowed being who suddenly finds himself in the hands of an enraged mob? The same authority quoted above observes that English law has done its utmost in outward form to surround prisoners with safeguards against the consequences of confession elicited under any sort of pressure, direct or indirect, as experience proves that such confessions, made through surprise, fear and the consequent stupor which these produce, are, is a rule, perfectly worthless. Yet it is mainly on such confessions—often extorted under threats or even torture—that some of these lynchings are perpetrated.

The questions of race tendency to criminality and its remedies have been well studied from their racial and from their social or environment factors. This has been done in creole islands where the sudden emancipation of large masses of negroes brought the subject to a pass that it imperatively demanded investigation and action. This happened long before our own emancipation in the South brought the question to our doors, and lynching is neither the scientific or humane solution of the subject.

The Dissemination of Infectious Diseases Through the Mails.—Considering the generally-accepted views concerning the communicability of diphtheria and of kindred infectious diseases, and the general knowledge that these are germ diseases, as well as in consideration of the knowledge possessed by the profession concerning the resistance and extreme and persistent viability of their germ, it would seem as if intelligent communities might exercise more effective domestic precautionary measures tending to limit the spread of these diseases. Only lately, in England, the sick cots of the inmates of a hospital for contagious diseases were connected by a telephone with a small partition just outside of the grounds, from whence the relatives could converse directly with their sick without risk of infection. That excellect idea suggests that this is much safer than if the sick or convalescents should write letters to their relatives. Letters are great carriers and disseminators of various germ diseases.

It would be well if the United States could be governed internally upon some general plan in its sanitary and preventive medicine aspects, just as its coasts, seaports and frontiers are protected by watchful vigilance of the Marine Hospital Service. Just why chaos, disorder and anarchy in preventive medicine matters should reign within whilst order and common sense mount guard on all our borders, is a paradoxical question. Persons with a malignant case of diphtheria in the room will thoughtlessly sit down and write a long letter, possibly arise half a dozen times during its writing to attend to the sick one, handling its spit-cup, cloths and medicines, then return with unaseptic and thoroughly infected hands to complete the letter, which will probably be folded and mailed to a relative or friend with half a dozen of small children residing in or out of the State.

On one occasion, whilst visiting a sick child in a family where there were several small children, I was shocked by hearing a lady visitor explain how fortunate we were not to have any diphtheria; she then went on to tell how she had just received a letter from her son, who was a physician in a neighboring State, in which he informed her that malignant diphtheria was raging in his location, and that he had just lost several cases. She had just taken the letter out of the post-office, and without thinking of the possible danger she was causing the family to run, she took the letter out of her pocket and proceeded to read it. She was much surprised when I suddenly put an end to her reading, and advised her to burn the letter at once and to disinfect her hands and pockets. More than once have I seen persons, otherwise thoughtful and very considerate, read letters just received from relatives, whose homes were afflicted with diphtheria, in rooms wherein were several children. Such conduct is inexcusable, and not in the least encouraging as denotive of the very rapid spread of general intelligence.

The post-office department—which very properly excludes all disease germs in bottles and packages from being carried in the mails—could very properly and consistently assist humanity by extending the meaning of its regulations, so as to cover *all* letters, papers, or other mailable matter coming from houses, patients, nurses or physicians who are affected with, attending to, or in any way exposed to diphtheria infection. The hardships that such an extension of the post-office regulations would entail, are not as burdensome as might at first appear, as the relative or other person can easily go and *dictate* their letters to unexposed persons outside of the house, who can also attend to their mailing. This would be a very easy matter, and it would save much needless work, and likewise save much expense, agony, and sorrow. The great number of stenographers and typewriters that now are to be found in every town, or even in small villages, makes this procedure something very easy. No newspaper should ever be mailed away after it has once entered an infected house.

The matter of properly training the people to these observances, if the training is backed by some regulations, is comparatively easy. Of course, we would have to contend with that class who do not believe in the existence of disease germs or in doctors, nor in any precautionary measures, but these people must be taught that the small ignorant minority cannot, on account of their stupid perversity, jeopardize the lives, comfort, and peace of mind of the great intelligent majority. We have too many in our midst who fail altogether to observe that to be civilized we must do something more than merely wear a white shirt with cuffs and collars. Civilization means thoughtful consideration as well as a thorough cultivation of the intelligence.

Our quarantining of the house and household in cases of diphtheria, with the subsequent fumigation of the *room*, done in a half-way manner, are of little avail as long as letters and papers from the infected room are allowed to be written, folded and mailed to infect their recipients or their families, or by contact, to infect the mails of other innocent parties. Although a firm believer in the occasional *de-novo* origin of most infectious diseases under favoring circumstances, we are also a most firm believer that each new case forms an active new disseminating center, and we feel that whilst attempting to prevent conditions that favor the spontaneous generation of these diseases, that we should not neglect any important details in circumscribing the possibility of the spread of the disease from established and well authenticated centers of infection. The post-office department can assist greatly in this direction, it will reach an order of intelligence that can be reached from no other source.

Dust of Rooms as a Carrier of Consumption.—Dr. Guy Hinsdale (*Medical News*, May 2d), during the course of a lecture on the atmosphere as a factor in disease infection, held that air, that is simply respired by healthy persons, is harmless. He held, however, that the air may become infectious through being loaded with germs from dust taken from furnishings of rooms or from the walls of rooms that have harbored persons afflicted with some such germ disease as tuberculosis. In this connection he described the results of a series of experiments made in the Adirondack Mountains health resorts, from dust collected from buildings that had been occupied by consumptives, animals inoculated with the dust falling victims to the disease. Dr. Hinsdale cited the experiments of Cornet in the Berlin hospitals, where the dust from the walls and head-boards of beds of fifteen out of twenty-one rooms wherein tuberculous patients had been confined, furnished inoculable material. Like tests affecting the dust taken from the walls from rooms of fifty-three private patients gave like positive results. It is the dust, accordingly, that must be shunned and which is the carrier of disease. The doctor recommended the use of hardwood floors, dryness, and plenty of sunlight, as well as the special avoidance of ground dampness. Consumptives' rooms should be well disinfected before they are again occupied.

Gonorrhœa in Children.—Fisher (*Deut. Med. Wochnschr.*, No. 5, 1895), relates the history of an endemically acting series of gonorrhœa cases occurring in the Altona Hospital. Of 54 cases of vulvo-vaginitis in young girls, 50 were found to be cases of true gonorrhœa. Of these, in only one case was the infection due to direct contact, this one case being the result of attempted coitus. Fisher relates that for some years the disease had been endemic in the hospital, but that the exact mode of transmission had not been discovered.

Vulvo-vaginitis in children is often due to some other form of infection besides that of gonorrhœa, and it often occurs spontaneously from some low general condition in the child. Medicolegal questions often arise in this connection, wherein the reputation as well as the liberty of some innocent party may be jeopardized. Cases of seemingly true gonorrhœa in children, with the specific gonococcus, have been observed wherein there was an utter absence of infection from any outside sources. A urethritis with the production of the gonococcus, has been induced by the injection of ammonia in the urethra.

Hot Water in Conservative Surgery.—At the last French Surgical Congress, according to *The Hospital*, Dr. Reclus highly recommended the use of water of a temperature of from 140° to 144° F., in the treatment of compound surgical injuries. A jet of water is made to thoroughly irrigate all the injured tissues. The claims are that the antiseptic condition of the water at these temperatures, its cleansing and hemostatic properties, and as a furnisher of heat, tends to restore and maintain the vitality of the parts, facilitates repair and diminishes in a great degree the otherwise possible loss of substance. After this preparatory treatment the limb is wrapped in antiseptic substances, leaving nature to separate the dead from the living tissue. Dr. Reclus claims that by this method amputations, which would otherwise seem unavoidable, may often be escaped, and that if an amputation must in the end be performed, that more tissue can then be saved. The method is peculiarly recommended in such injuries whenever the parts have suffered great local traumatic shock, injuries wherein great sloughing of the adjacent, but apparently uninjured tissues may reasonably be expected.

Eyes of Insects.

Scientists have long been wondering whether the insect's faceted eyes projected one or a number of images upon the retina. In order to solve the problem Prof. Exmer constructed a miniature camera, using a beetle's eye for the lens. This was directed toward the window of the laboratory, on one of the panes of which he has pasted the letter R. The window and the letter R are distinctly seen. One even gets a faint glimpse of the church steeple outside. The result was sufficient to prove that only one image was projected on the beetle's retina.—*Romance.*

TRANSLATIONS FROM THE FRENCH.

By W. L. ADAMS, M. D., Palo Alto, Cal.

The Therapeutics of Infectious Diseases—A Conservative Opinion.—M. Bardet, at a recent meeting of the Society of Practical Medicine and Surgery, in discussing a communication of M. Tison relative to the treatment of erysipelas, scarlatina and other infectious diseases by means of aconitine and antipyretics, spoke as follows:

M. Tison has shown us that by his treatment, which consists in administering to the patient afflicted with these diseases aconitine in large doses, and joined with it, in cases of intense fever, full doses of antipyretics, the patient made a rapid recovery, and he counsels us to imitate his method.

The favorable result of these observations just reported would seem to justify us in following the advice of our colleague; yet I believe such treatment to be directly contraindicated, because it seems to me that a few facts on the negative side do not really prove anything against well-established doctrines in therapeusis.

The more I experiment in therapeutics, the more I become convinced of the advantages of prudence and of great reserve in the use of drugs in cases of infectious disease. And when I hear and see recommended powerful medicines and active methods of treatment, I am always tempted to say: "Your cases show that the patients have resisted not only the disease but also your intervention, and especially demonstrate the infinite resources of the human organism."

It used to be said that in those maladies whose true nature was unknown, it was best to let nature act. Now, I believe sincerely that this old formula, which has been so ridiculed and condemned, represents still an absolute truth. For, rightly interpreted, we shall immediately see that it applies very well to the modern doctrine of oxidation and phagocytosis.

What is infection? It is the invasion of the organism either by the parasites of disease or by toxins secreted by these parasites. How can the organism defend itself? By phagocytosis on the one hand, and on the other by the secretion of antitoxins and by the increase of the phenomena of oxidation. Such is, in brief, the modern theory of infection and its accompanying phenomena.

We must admit that, in the struggle that is set up against the morbid element in infection, natural processes are immeasurably superior to any of our artificial methods of treatment. Our predecessors were not so far wrong as has been believed when they taught that in all fever we should let nature freely act. If our medication can intervene to any advantage it is only on the express condition of following the indications furnished by biology. Especially must we be careful not to risk the blocking the way of those physiological processes that are capable of and engaged in freeing the organism from the toxic materials that encumber it. An infection is a veritable poisoning, and we should act as though in the presence of an accidental intoxication. The duty of the physician should be to provoke the expulsion of the toxins, and to stimulate, if possible, those normal actions that are favorable to those phenomena that are natural under the circumstances,—that is to say, phagocytosis, increased oxidation and urinary function.

Are these the results that we would obtain by the administration of an alkaloid as powerful as is aconitine, or by the use of antipyretics? It is true that aconitine exercises a marked constrictive action upon the cephalic vessels, and on that account it would seem logical, theoretically, to administer it to patients attacked by facial erysipelas. But that action is only accessory. Before all, this drug is a general agent causing a weakening of all nervous reactions, and in administering it you diminish the energies that are necessary to the organism in its struggle against the element of infection.

As regards antipyretics, they are agents that lessen oxidation in a remarkable manner, thus causing a lowering of the temperature. But the elevated temperature is the external manifestation of an act of defense. To suppress that oxidation is to shut up the wolf in the sheep-fold, seeing that thus the toxins accumulate in the organism. Fever is a necessary thing in the course of infectious disease; far from preventing it we should, within certain measure, encourage it. We know that in many cases the inevitable elevation of the temperature, if left to itself, would constitute a real danger to the patient, and so we must, when necessary, combat the increase of fever. But this is best done by the cool bath, or by sponging, and by abundant cool drinks that have, in addition, the advantage of exciting the renal functions. I firmly believe that antipyretics, as they are dangerous from every point of view, should be absolutely banished from the treatment of infectious maladies.

Thus our intervention in these diseases should be conducted with extreme reserve, since its exclusive object should be to oversee the normal progress of those processes of nature that tend to a favorable result. Very powerful medicines should not be used, as they are a danger to the patient. Hygienic methods, on the other hand, will always give the best results. We must know that sometimes an excess of zeal on the part of the physician is more dangerous than complete abstention, especially in such diseases as erysipelas and scarlet fever, that ordinarily are benign in their prognosis. For, in case that the malady should assume a grave character, the untimely use of powerful drugs is capable of producing deplorable results.—*Journal de Médecine de Paris*, June 28, 1896.

Seeing Air-Borne Spores.

At the April meeting of the Calcutta Microscopical Society, Mr. W. J. Simmons described his method of making an observation of dust with a view of detecting in it air-borne spores which are said to cause molds to grow in a manner which the earlier observers believed favored the doctrine of spontaneous generation. The method is simplicity itself, and consists in placing a drop of pure glycerine on the center of a slip of glass measuring three inches by one inch. The drop is smeared over the glass lightly so as to cover a surface of about three-quarters of an inch in diameter, and is then exposed to the air for two or three days. When the dust which settles on the smear is to be examined under the microscope, a circular cover glass is placed on it, and the deposit is now shown by the microscope to be composed of a most heterogeneous collection of objects. Fibers of all sorts, the scales from insects, wings, root, pollen, starch, down, fragments of epidermis, and of the cuticle of plants, hair, entire mites, numberless inorganic particles, charred straw, portions of insects, hairs from plants, and several spores of fungi are thus revealed.

If a drop of glycerine, half an inch in diameter, arrests so many spores, how many do we inhale daily, and how many are deposited on our food in the course of a day? The study of dust is not one suited to a beginner in microscopy, because it presupposes familiarity with the thousand and one objects which are certain to be present on the glass slip; but it presents no insuperable difficulties, and does not demand any special or costly appliances.—*Ex.*

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SAN FRANCISCO, SEPTEMBER, 1896.

Editorial.

NAVAL SURGEONS.

In the July number of this JOURNAL we took occasion, *apropos* of the vacancies in the medical corps of the United States Army, to advise young physicians having ambition to enter Uncle Sam's service not to apply for a position in the navy for they are sure to be treated discourteously by the line officers. Strange as it may appear these young naval officers have imbibed the notion that the naval surgeon is beneath favorable notice; in fact, that he is not a gentleman. Of course, we all know that a line officer is always a gentleman. We emphasized our remarks by citing the case of Dr. Kirschman, who was so brutally treated, not only by the line officers, but by the President of the United States himself.

We felt that nowhere else, but in the United States, would young men, coming from the same State, city or village, as have many of these officers and surgeons, affect class distinctions upon their entrance into the service of their country. It has become pretty well understood that, as a rule, the young men at West Point and Annapolis very soon forget their origin, which very often is an exceedingly humble one, and assume the airs of beings superior to their fellows in civil life. These young officers apparently forget that *they* are educated at the public expense, which is not the case with the surgeons of the army or navy. The medical graduate applying for a position in the service has given to his medical studies the same number of years it takes to make lieutenants in the army or navy; in addition he has had to bear the whole expense of his education and possibly contribute towards theirs. After he makes his application he is then forced to a severe examination for position of assistant surgeon. It is safe to assume that he has given as great an amount of mental labor to his studies as have his brother officers, yet they look upon him as an inferior. That such a vicious system can not only be tolerated, but encouraged, by the authorities in the only two charitable institutions receiving their entire support from the taxpayers of the country at large is a severe commentary on our boasted love of equality and justice.

We can easily conceive that the time is not very remote when the surgeons of *our* army and navy may receive the same treatment, and be relegated to the same relative social position as is now occupied by the English army and navy surgeon.

A late number of the *Practitioner* relates a story to illustrate the feeling with which the medical department is regarded by the military authorities in England: "On the arrival of the hospital-ship Coromandel from the coast of Africa, after the Ashanti expedition, she was inspected by the Commander-in-Chief. Lord Wolseley is said to have complimented everybody connected with the ship *except the doctors*, and on leaving he shook hands with every officer, and even with the head nurse; but from the moment of his stepping on board to the time of his leaving the ship, he took no notice whatever of the principal medical officer of the expedition, who was present. Lord Wolseley has more than once seemed to go out of his way to show his unfriendly feeling towards the medical staff, and on at least one occasion he was pointedly—I do not say intentionally—discourteous to a distinguished member of that body. When the officers of the Emin Pasha Relief Expedition returned to England, Lord Wolseley was warm, even effusive, in his welcome to Lieutenant Stairs and the other officers, with one exception. Surgeon-Major Parke, who had shown courage at least equal to theirs, who had done his duty not less faithfully, and who had performed the slight additional service of saving the life of each individual member of the party, was not thought worth a word of greeting, or, in fact, notice of any kind."

It is plain that in both countries like causes tend to lower the efficiency of the medical service, especially in the navy. The feeling against the medical department by the military authorities is not confined solely to them; it is passed down the line to the very lowest officer. That the line officers conceive themselves to be superior beings is well illustrated in their treatment of the marine engineers. Upon this body of men devolves the greatest responsibilities, their faculties must ever be on the alert whether in peace or war; and they must possess the highest technical skill. The enormous responsibility which has grown out of the development of the modern warship, has been such that many cases of prostration and collapse have occurred within the past year or two. This condition of affairs is caused by the authorities compelling one man to do two men's work. The naval authorities cannot shift the responsibility from themselves for they have thus far thwarted every move designed to remedy this abuse. The secret of this opposition by the line officers is that the bill drawn up to recognize and increase the efficiency of the navy, proposes to increase the number of engineers and raise their rank, thus recognizing their skill and responsibility. Here is where the shoe pinches, the line officers do not want the surgeons or marine engineers to stand on an equality with themselves, yet, who can doubt but that the efficiency of the service would be greatly raised by having young men of high intelligence willing to enter a service which our most capable young men are for the present warned to shun.

To show how difficult it is to bring these matters before the very highest authorities, as well as to show how helpless the Secretary of the Navy is to initiate reform, it is understood that there is a ring or machine having charge of navy matters, which sees to it that the Secretary shall be nothing more than a figure head. They so manage matters that all communications to or from the Secretary *must* pass through the hands of some member of this ring. A late distinguished naval officer says: "The Secretary must depend upon naval officers for information and advice, and for the execution of his orders, and the 'machine' sees to it that these functions are performed as far as possible by its own members. I doubt if there has been any Secretary of the Navy for many years who has not eventually discovered that he has been grossly deceived by the very officers whom he trusted as advisers."

We can, therefore, readily understand why there is difficulty in persuading our brightest young medical men to enter the service. The medical profession of the United States should make itself felt in these matters. If the naval authorities continue to degrade the medical surgeon by every possible means, and the medical profession as a body say nothing, it will be accepted by the people at large as an evidence of the surgeon's inferiority. For the honor of our country, for the love of justice and fair play so universally present in the Anglo Saxon race, we hope that a radical change may be made in this department of the service at no distant day.

DEATH FROM CARELESS DISPENSING.

Not long since a young woman took a dose of "Daisy Powder" for headache. Shortly afterward she became excited and died a prey to violent convulsions. At the inquest evidence was produced showing that these "Daisy" powders contained antifebrin or acetanilide so unequally distributed that a dose in each powder varied from 4.60 to 10.89 grains. It would seem that there could have been no more positive evidence of gross carelessness in dispensing harmful drugs than was shown in this case, yet a coroner's jury, having all the facts before them, did nothing more than to state the facts in their verdict.

We are willing to wager a good dinner that many of our readers, after reading the above, will very likely exclaim, "We expect nothing better than just such stupidity, or worse, from American coroner juries; let such a case as this occur in any European country, especially in England, and you would soon discover that such carelessness would be quickly and severely punished. There they know better how to protect the lives of their people from quackery and ignorance." Sentiments similar to these have been so frequently expressed that a very considerable proportion of our people have come to believe that the American official is more indifferent to their welfare than is the case in many other countries. We acknowledge that we have much to learn regarding the question of legislation governing these subjects. We believe that stringent laws should be enacted which will render it a risky business to sell adulterated food or drugs, or to administer in an indiscriminate manner such an active poison as acetanilide, more especially as we have drugs which possess equal therapeutic properties without the same danger to life.

This little story of the "Daisy Powder" is related to show that sweeping denunciations as to the inefficiency of our laws, so freely made by a certain class of people, is wholly undeserved, for this incident happened in England, which is supposed to have the most rigid laws governing such cases. We call the attention of our readers to the comment made by the *Medical Press and Circular*, it is as follows: "In any other country than this (England) the person responsible for such a catastrophe would receive condign punishment, but the life of one of Her Majesty's subjects is thought of so little importance that no proceedings are apparently deemed necessary."

MEDICAL PROSTITUTION.

Another Cheap John medical shop is being or about to be organized in San Francisco. The medical degenerates must be accumulating in our midst. They seem to be using what little knowledge and ability they possess for the degradation and prostitution of an honorable profession. Not satisfied with offering their services to this, that and the other order or lodge, they are now preparing to organize a health insurance society, which will offer its members a year's medical treatment for $5. It is not to be presumed, however, that many members will survive a whole year's treatment from, we can hardly say a physician, perhaps doc. will answer, who values his services at considerably less than one cent and a half per visit. Our medical societies must see to it, that their members take no part in such unprofessional, undignified, and humiliating transactions. The professional man, in any profession, who abandons all the permanent advantages of professional standing, for temporary gain, makes the blunder of his life. We commend to our societies the resolutions adopted by the medical gentlemen of Santa Clara county, and printed on another page.

MM. Auguste Gerardin and Maurice Nickloux report to the Paris Academy a method for measuring smells in the air due to organic vapors. By means of incandescent platinum they burn out the organic vapors and determine the decrease in volume. They have thus been able to find, for example, that the smell of violets occupies twice as much volume as the smell of camphor. They think the method can be employed to test the hygienic condition of the air of cities.—*Science.*

VALUE OF LIQUID EXTRACT OF MALT.

Almost every medical journal contains advertisements of some of the liquid malt extracts which are supported by testimonials from so-called reputable physicians. These extracts are very largely prescribed under the impression that they possess converting power far greater than beers, ale, lager and porter.

In answer to numerous inquiries concerning the real value of these malt extracts Edgar L. Patch, of Boston, gives the result of his examination of several market makes in comparison:

	Extract. Per cent.	Alcohol. Per cent.	Converting power.
No. 1	10	3.59	none
No. 2	10.1	5.33	none
No. 3	14.7	2.34	none
No. 4	10	6.45	none
No. 5	10	4.86	none
No. 6	7	3.47	none
No. 7	8	3.8	none
Lager	5 to 9	3.5 to 5	none
Ale	6 to 10	10. to 14	none
Porter	5 to 7	6. to 8	none

As these liquid extracts do not possess a particle of diastasic power it is not reasonable to suppose that they are of more value than any beer possessing the same proportion of extract and alcohol. The thick, non-alcoholic extracts average to contain about 72 per cent of solid extract and to convert from eight to eleven times their weight of starch. A fluid extract made from select malt by repercolation, using a menstruum of 18 per cent alcohol by weight will contain about 13 per cent alcohol, about 30 per cent of solid extract and convert fifteen times its weight of starch. Diluted with two parts of water it would be superior to any of the liquid extracts in all qualities but one. It would not be as agreeable in taste as the products prepared by direct fermentation.

Dr. Chas. C. Wadsworth, Secretary of the State Board of Examiners, has removed his office and residence to 1104 Van Ness Avenue, between Geary and Post streets.

We have just learned that Dr. E. Bragdon, Jr., lies seriously ill at his home in Martinez. We offer our sympathies to him, and trust that he may soon be able to make his usual rounds.

THE AMERICAN ACADEMY OF RAILWAY SURGEONS.

The third annual meeting of the American Academy of Railway Surgeons will be held in Chicago, Illinois, at the Auditorium on Wednesday, Thursday and Friday, September 23, 24 and 25, 1896. President, John E. Owens, M. D., Chief Surgeon C. & N. W. R'y., Chicago, Ill.; Secretary, Webb J. Kelly, M. D., Division Surgeon Erie R'y., Galion, Ohio; Editor, R. Harvey Reed, M. D., Chief Surgeon C. S. & H. R'y., Columbus, Ohio. M. Gardner, M. D., Chief Surgeon S. P. R'y., San Francisco, is a member of the Executive Board.

Every leading railroad is represented in this body. The papers to be read at this meeting cover a wide range of subjects of great importance to railroads and the travelling public. We are pleased to note that the subject of "Expert Testimony, its Use and Abuse, with some Recommendations for its Improvement," has been assigned a prominent position on the programme. There is no question but that it merits the widest and fullest discussion. We shall not anticipate, but we hope that this body will recommend that experts be called by the Courtf not by the parties interested. For the honor and dignity of the medical profession we deprecate this idea that because a medical man has been summoned to testify in court he must necessarily be biased in favor of the side calling him to the stand. There is no question but that the only means by which fair and impartial testimony can be procured, is that the expert shall be summoned by the Court. The subjects of fractures, shock and injuries to the body are to be fully discussed.

The motto of the Association is "The higher the order of railway surgery, the greater the protection to the employee, the passenger, and the company."

The Metric System is discussed by Herbert Spencer in a series of letters in *Appleton's Popular Science Monthly.*—*Science.*

The University of Buda-Pesth will confer the honorary degree of Doctor of Medicine on Dr. J. S. Billings.—*Science.*

Cholera in Egypt.—There were 1034 cases of cholera reported in Cairo since last October, but of the entire number there was not a single one among Europeans.—*Medical Record.*

Mississippi Valley Medical Association.

The date of the meeting of the Mississippi Valley Medical Association has been changed to September 15, 16, 17 and 18, in order to permit the members and their families to take the opportunity accorded by this change to make a pleasant tour through the Yellowstone Park, so justly celebrated as the wonderland of America.

American Public Health Association.

The American Public Health Association, including the United States of America, the Dominion of Canada, and the Republic of Mexico, will hold its 24th annual meeting, September 15 to 18, 1896, in the Ellicott Square Building, located in the heart of the great commercial city of Buffalo, New York. All parties wishing to exhibit sanitary goods and appliances are requested to make application at the earliest possible moment. Charge for space 40 cents per square foot. Address all communications to Byron H. Daggett, M. D., 258 Franklin Street, Chairman of Committee on Exhibits.

The American Electro-Therapeutic Association.

The sixth annual meeting of the American Electro-Therapeutic Association will be held on Tuesday and Wednesday, September 29th and 30th, and Thursday, October 1st, 1896, in Allston Hall, The Studio Building, on Clarendon Street, near St. James Avenue, Boston, Mass. There will be two discussions of importance in electro-therapeutics, interesting reports of all standing committees, several scientific lectures on the first evening, with demonstrations and stereoscopic views (including the Roentgen X-rays, and electric principles in the treatment of diseases), given by eminent talent.

EMIL HEUEL, M. D., Secretary,
352 Willis Av., New York City, N. Y.

HANAU W. LOEB, Secretary, St. Louis, Mo.

DR. H. W. LOEB, Secretary of Marion-Sims College of Medicine, has asked us to kindly publish the following notice:—Whereas, Dr. I. N. Love has found it incumbent on him to sever his connection with the Marion-Sims College of Medicine, the members of the faculty of that institution embrace this occasion to express their appreciation of his past services, and to extend to him their hope that in all his future connections he will find both pleasure and profit.

American Association of Obstetricians and Gynecologists.

The ninth annual meeting of the American Association of Obstetricians and Gynecologists will be held in the Hotel Jefferson, Richmond, Va., Tuesday, Wednesday and Thursday, September 22, 23 and 24, 1896.

Bureau of the Medical Press.

At the meeting of the Mississippi Valley Medical Association a new plan will be inaugurated whereby the leading journals from all parts of the country may be represented at our principal society meetings, at a nominal expense. Mr. Chas. Wood Fassett, at the solicitation of a number of publishers, will, at the meeting of the Mississippi Valley Medical Association, open a Bureau of Information and Publicity for the Medical Press, and from his long experience in journalistic work, we predict it will be an unqualified success. A catalogue will be issued for the occasion, showing the medical periodicals and reference books contained in the bureau, and advertising matter of various kinds will be distributed for members. The PACIFIC MEDICAL JOURNAL will be on file at the bureau, and our readers and friends in attendance at this meeting are cordially invited to make the bureau headquarters. They will find plenty of good reading matter, medical dictionaries, and the largest reference books, as well as writing materials and desks for use of visitors.

REPORT OF THE STATE BOARD OF HEALTH.

By J. R. LAINE, M. D., Secretary State Board of Health.

DEATHS.—Reports from forty-five cities, towns, villages and sanitary districts, aggregating a population of six hundred and fifty-three thousand three hundred and fourteen, show a mortality of nine hundred and eleven—a death-rate of 1.39 per thousand for July, 1896, or 16.68 per thousand per annum.

There were one hundred and thirty-one deaths from consumption, sixty-two from pneumonia, thirty-eight from bronchitis, seventeen from congestion of the lungs, seven from diarrhœa and dysentery, seventeen from cholera infantum, one hundred and ten from other diseases of the stomach and bowels, four from diphtheria, four from croup, one from scarlatina, five from whooping-cough, three from typho-malarial fever, fourteen from typhoid fever, two from remittent and intermittent fevers, six from cerebro-spinal fever, forty-two from cancer, one from erysipelas, eighty-eight from heart diseases, three from alcoholism, and three hundred and sixty-six from all other causes

PREVAILING DISEASES.—Reports from twenty-eight localities outside of the larger cities and towns, give fifteen cases of pneumonia, thirty-nine of bronchitis, seven of pleurisy, fourteen of congestion of the lungs, one hundred and eighty-four of diarrhœa, sixty-seven of dysentery, fourteen of cholera morbus, forty-four of cholera infantum, three of diphtheria, one of croup, four of scarlatina, sixty-five of measles, forty nine of whooping-cough, twenty-seven of influenza, twenty six of typhoid fever, one hundred and eighteen of malarial fevers, three of cerebro-spinal fever, four of erysipelas, thirty-nine of rheumatism, thirty of neuralgia, forty-six of tonsilitis, thirteen of pharyngitis, one of enteritis, one of jaundice, one of marasmus, and fifteen of la grippe.

Proceedings of Societies.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

The regular meeting of the San Francisco County Medical Society was held July 14th, 1896. The President, Dr. W. Fitch Cheney, occupied the chair. The minutes of the previous meeting were read, and on motion adopted.

The report of the Committee on Credentials upon the application of Dr. C. H. Carlson was satisfactory, and on ballot he was duly elected a member of the Society.

DR. A. H. TAYLOR read a paper on

Two Cases of Tubercular Meningitis.

The only excuse I can offer for bringing these two cases of meningeal tuberculosis before you this evening is their comparative infrequency at the present time. Both cases are quite typical as to history, cause, and termination.

The first case, John S., age 2 years, was brought to the office June 16th, 1895, with a history of fretfulness and disturbed digestion. The nurse said he vomited his food frequently, and had been very constipated for a week, and the only movements of the bowels the child had were occasioned by enemata. The history up to that time was not clear, as the boy had only been with this nurse for a week, and had been passed along from several nurses since its mother's death from alcoholism when the child was three months old.

The father was living, and presented a poor, sallow, under-fed appearance, showing little physical or mental stamina. He said the boy had never been strong, and had been fed on condensed milk for the first year. There was no history of tubercular trouble that could be made out on either side. The mother had been a chronic drunkard for two years before the birth of the child, and was not sober for two days at a time while she was carrying the child. The father had no history of disease that could affect his offspring.

The physical appearance of the patient was that of a poorly nourished child of average size for its age. Colorless, flabby skin, light hair and peculiarly prominent ears, this feature being particularly noticeable as the head was small, flattened posteriorly, and generally asymmetrical, being very broad between the ears.

It was very nervous and easily frightened, so that any physical examination was most difficult. Thinking it was simply some form of digestive disturbance, small doses of calomel were ordered, and instructions given as to regulating diet.

The child was brought again the next day, and exhibited no improvement; had vomited food and had had no movement of the bowels. Calomel was stopped and enemata ordered.

The next day was called to the house and found patient much worse. Rectal temp. 103°, pulse seventy (70) and irregular; very restless, tossing head from side to side, eyes wide open and having a meaningless stare, a constant movement of one hand over the forehead and side of head, knitting of the brow as if in pain. From this time until the end, which came a week later, the cerebral symptoms rapidly progressed. A severe spasm occurred on the fifth day, lasting several hours, and was followed by a hemiplegia. Pupils irregularly dilated, temperature ranging from 101° to 105°, pulse slow; muscles supporting head showing some rigidity. Rapid emaciation in spite of the nourishing enemata which were retained. General convulsions recurred several times, but were controlled by sodium bromide. Toward the close the typical Cheyne-Stokes respiration became manifest.

A particularly interesting symptom throughout was a bright red flush of one cheek, alternately coming and going.

The second case was a boy (Chas. B.), age 14 months, I was called to see October 27, 1895. I had known the family professionally for two years, and had seen the child nearly every month since its birth. The present illness was noted a week before, but as the child seemed only a little more irritable than usual, and had occasional vomiting spells, nothing was thought of it until it refused to take any food and seemed quite ill.

No history of tubercular disease could be gained from either parent. The father had never been ill, was a marine engineer, and had passed much of his life at sea, and was the picture of rugged health. The mother was strong and had no tubercular history, but her mother had some mental trouble and had been in an asylum for a time. This baby was her second child, the first one being a strong and healthy girl of four years.

The infant at birth had every appearance of health, and did well until the tenth day when it was attacked with a severe double lobar pneumonia, and there seemed but little chance for its recovery; however, it managed to survive, and believing the basement in which they lived was not in the best hygienic condition, as the older child and the mother had had severe attacks of bronchitis and tonsilitis a short time before, I advised them to move into sunnier and better ventilated quarters. The child improved in strength after the change, and seemed to be thriving until it was three months old when it had an attack of bronchitis that lasted some time, leaving a cough that persisted for a long time, but finally subsided after using an emulsion of petroleum. At the age of eight months the mother brought the child to the office for an abscess of the right testicle. On opening it about two drachms of pus was evacuated, and under antiseptic treatment (irrigating and packing, and iodoform gauze), it healed readily and gave no further trouble. It did fairly well after this, having some little digestive trouble, with an occasional attack of bronchitis; was rather precocious, and had a well formed head of more than average size.

I saw the child about three months before its last illness, and found it pale and thin, the skin being loose and the muscles soft and flabby, and it seemed difficult to find any food it would take and assimilate properly.

On examination on October 27, I could see little change from its condition a few weeks before, but as it was constipated I ordered a laxative, and on calling next day I found it had slept badly and was very peevish and restless; would not allow its mother to place it in bed, but would lie on her lap, keeping its face turned from the light, and in turning eyes to the light it would squint, keeping them partially closed. It had vomited several times during the night, but bowels did not move without enema.

The child did not improve, and next day I was called hurriedly and found child had had a convulsion limited to one side. Marked cerebral symptoms now supervened. The head retracted and neck muscles stiffened, eyes half open; conjunctiva in a state of purulent inflammation; a peculiar staring expression, pupils dilated and irregular; abdomen retracted. Temp. 102°, pulse 70 and irregular, and respiration alternately rapid and slow.

The case progressed rapidly. Hemiplegia and paralysis of the muscles of deglutition came on early, so all nourishment was given by the bowel, but for a few days before death none was retained, and emaciation was most rapid, the integument being so loose it could be wrapped in folds about the limbs. Toward the end the Cheyne-Stokes type of respiration became well marked, temp. ranging from 104° to 106°, pulse becoming rapid and very weak, and death occurring on November 8, eleven days from the time onset was noticed.

No autopsy was allowed in either case.

I am indebted to Dr. Wm. Fitch Cheney for his able assistance in forming an early diagnosis in each case.

The treatment was practically symptomatic. Sodium bromide was given per rectum in both cases and controlled the marked hyperæsthesia and convulsions admirably. A mustard leaf applied to the base of the skull in the first case seemed to have a quieting effect, the child getting several hours of good sleep from it. The heart was stimulated in the second case by small doses of strychnine given endermically.

The history of tubercular meningitis, as given by Jacobi in the "Cyclopædia of the Diseases of Children," dates from the first accurate description given in 1768 by Robert Whytt under the name of "Hydrops of the Cerebral Ventricles." The term tubercular meningitis was introduced into our present nomenclature in 1835 by Fabre et Constort, its synonyms are acute hydrocephalus, morbus cerebralis whyttii, hydrophlogosis ventriculorum cerebrii and febris hydrocephalien.

The *pathology* consists essentially in an acute miliary tuberculosis of the pia mater of the brain and occasionally of the cone. Osler says that the meninges are not alone involved, but the contiguous brain substance is also infiltrated with leucocytes, and terms it a meningo-encephalitis. Strumpell says the tubercles are usually found in the greatest numbers along the course of the larger blood vessels, and therefore chiefly in the pores and clefts of the surface of the brain, in the fissure of sylvius, at the chiasma, the pons, the medulla and the cerebelum.

Generally the base is more often affected than the convexity; hence, the term basilar meningitis. Exudations may be copious and may be either serous, purulent or gelatinous. The cavities are dilated and the convolutions flattened against the cranial vault. Capillary apoplexies are common, owing to the changes above mentioned and occur most frequently in the choroid plexus. As meningeal tuberculosis is usually a secondary infection some of the other organs show the tubercular process, most often a generally miliary tuberculosis is discovered.

In adults the lungs are most often affected. In children, besides the brain, the peritoneum and bronchial glands are affected. There are few cases in all the forms of tubercular meningitis in which the bacillus has not been found.

Etiology.—The implanting of the specific bacillus in a soil made fertile by hereditary susceptibility, bad hygiene in the way of dark, damp and poorly ventilated quarters and improper food. A pneumonia accompanying the above conditions furnishes an excellent point of entrance for the germ.

Meningeal tuberculosis is more frequent between the second and seventh year and occurs more often in boys than in girls, although it is not uncommon in the later stages of pulmonary tuberculosis in the adult and may occur in the first few months of life.

The symptoms may be divided to correspond to the pathological changes. First, those of irritation following the hyperæmia of the pia. Second, those of compression from the exudation. Jacobi mentions as third those of the extinction of the functions of the centers.

The first symptoms noticed beyond the unusual fretfulness are the vomiting without the usual nausea; the obstinate constipation, slow and irregular pulse, stiffness of muscles supporting the heart and constant headache. Gradually somnolence increases, photophobia becomes marked and an increase of temperature follows. The eyes remain partially open and have a peculiar stare, pupils dilate and are irregular in size. Consciousness is gradually lost, a general convulsion comes on suddenly, leaving a paralysis more or less of some group of muscles or a hemiplegia, the pulse becomes rapid, temperature increases and the Cheyne-Stokes respiration marks the beginning of the end—usually about three weeks from the time the disease is first discovered.

Prognosis.—Jacobi says he has seen three recoveries, one dying from a necrosis of cranial bones and secondary meningitis superinduced by tartar emetic ointments. The second at the age of thirty lives in an insane asylum. The third terminated in incurable blindness. In these he says the diagnosis was *possibly correct.* Most writers consider the prognosis absolutely bad.

Treatment.—After the disease has become established no plan of treatment yet devised has been of any service. As to the prophylaxis in a child that has the hereditary tendency there is a possibility of accomplishing something. The child should wear short hair that the head may be kept cool. The skin accustomed to cold bathing, the best of hygienic surroundings, which means: plenty of sunlight, well-ventilated and dry living rooms with proper food. Nothing that would tend to excite the brain, so it should not go to school before the eighth year.

When the diagnosis is clear as to the existence of a tubercular meningitis little beyond symptomatic treatment is of service. Trephining has been advised as an experiment owing to the favorable results following abdominal section in tubercular peritonitis, and Keen advises tapping the ventricles to relieve the intercranial pressure. The old plan of tartar emetic blistering has been given up as worse than useless.

To relieve the symptoms of active congestion some writers apply ice and some advise against it. It was used in both cases reported with no favorable results. The room should be kept dark and quiet.

The mustard poultice to the nape of neck seems to be of value and may be repeated several times. Of drugs the iodide of potassium is theoretically the one to use. The bromides and possibly chloral per rectum will control the spasms. For the weak heart in the later stages strychnia and digitalis will be found of service. For the hyperpyrexia phenacetine has been advised in combination with some cardiac stimulant. Rectal alimentation is necessary in most cases.

In opening the discussion DR. HARRY M. SHERMAN said: There are two or three points that are easily suggested. First as regards the use of the terms tubercu*lar* and tubercu*lous*. The dictionary gives us about the same meaning to each of them. Tubercular is the adjective of tubercle, and tuberculous is the adjective of tubercular. We speak of a tubercular process of a bone, so tubercular-meningitis would not be right. The most interesting point in tuberculous meningitis is the possibility of bone tuberculosis. There are statements that interference with the brain trouble made bone trouble more liable, or *vice versa*, but the analysis of 100 cases by an authority shows this not to be so. I have seen cases of bone tuberculosis operated upon with a following tuberculous meningitis; and it is comforting to know that our operations do not increase the liability of a meningitis. As to a diagnosis, it is frequently very difficult. In one case in

June last, I withheld my diagnosis for two weeks. The whole symptoms seemed to point to an abdominal trouble, but the fact that the case did not speedily recover, and soon developed the retracted belly, the "boat-shaped belly," caused me to withhold the diagnosis until cerebral symptoms offered. The President will remember, I think, where, with Dr. Gibbons and myself, we watched a case day by day, uncertain one day, sure the next, that we had tuberculous meningitis. It is always best when in doubt to explain to the family the difficulty, and await further developments. Some years ago an ointment of iodoform was vaunted as a cure; but those cures were like we find in some so-called cases of syphilis. If tuberculous meningitis gets well it is rare. The cause of death in these cases is due probably to a paralysis due to a toxin of bacillary origin.

DR. RICHTER: I have doubts as to whether these cases reported by Dr. Taylor are cases of tuberculous meningitis. He should have punctured the spinal canal and examined the resulting fluid for bacilli. There have been a number of cases brought forward and so diagnosed. Certainly it is a proper proceeding. These cases resemble syphilitic cases; and there have been cases reported as resembling these which were due to the bacillus of inflammation. I have seen three cases during twenty years,—all died. In one case ointment of iodoform was rubbed into scalp and the case got well, afterwards syphilis appeared, and we knew that it had not been of tuberculous origin. One should be exceedingly careful in the diagnosis, especially at the present time; and I would ask Dr. Taylor why he did not puncture the spinal canal as a means of diagnosis.

DR. SOMERS: These cases of meningitis are of interest in view of the fact that such cases are hopeless. During the past year or so a great deal of attention has been paid this disease from a surgical standpoint. In a recent issue of the *British Medical Journal*, a record of several cases operated upon is given, especially one paper by Rickets. The operation done was trephining 1½ in. above and 1½ in. behind the left auditory meatus, and a trocar passed towards the left ventricle. No fluid was found, but drainage was made with a few strands of catgut between meninges. Case recovered. After recovery the temperature remained between 99 and 100 for a long time. Rickets' idea in so operating was similar to the idea of opening the abdomen in tuberculosis of the peritoneum. Another point in diagnosis is the similarity sometimes to convulsions from uremia which I have noted, and we should always examine the urine in such cases.

Dr. Pischl asked Dr. Taylor if there had been an ophthalmoscopic examination of the case made.

Dr. Taylor: No.

Dr. Pischl: It would help in making the diagnosis. While it would be rare to see tubercular nodules in the choroid, we might see a choked disk, and that would help in the diagnosis.

Dr. Kuhlman: I am astonished that the author would come here and say these were cases of tubercular meningitis. There were no post-mortem examinations made. I certainly see no symptoms here to think they are such, they are more of abscess of the brain. All cases of the kind seen by me have been more rapidly fatal, not lasting 11 days. As to the bacillus theory, that is out of the question; it is now in oblivion. As to a tapping of the spinal canal, I think that would be unnecessary, and a proceeding endangering the life of the patient.

Dr. W. F. Cheney, the President, after asking Dr. Carpenter to take the chair, said: I feel myself called upon to say a few words in these cases, as I saw them with Dr. Taylor. The main point is in the diagnosis, for when it is once established, the prognosis is bad. As to syphilis, I have never seen cases where the meningeal symptoms were the only symptoms of syphilis, there are other symptoms about the throat, etc., present. At the time I saw these cases the method spoken of by Dr. Richter was not spoken of, at any rate as a means of diagnosis, but as one of treatment, under which the patients died just the same. It is now used as a method of diagnosis. As to duration, tubercular meningitis in children over two years is of several weeks' duration, and not so rapid as Dr. Kuhlman says. Jacobi says from four to six weeks. Roach says that in infants under two years the course is shorter, the onset being more sudden, more like a traumatic meningitis, and the patient dies of high temperature and convulsions in a short time.

Dr. Herrick: There is one symptom not spoken of to-night, that of Trosseau, who pointed out that the drawing of a sharp instrument across the abdomen would leave a red line. We will all agree that this disease is incurable. The prophylactic is the most important, not the treatment. The attention should be paid to the feeding of infants, the largest part of cows from which milk comes for infant feeding are tuberculous, and so this is of vast importance, especially as young children are the most susceptible.

DR. TAYLOR: The retraction of the abdomen in the two cases was well marked. As to tapping, we were so certain as to its being tuberculous that we would not care to tap, and then, too, the people were of the class that would have laid the death at our door as resulting from the "operation." There was no syphilitic history as I had followed the family for a long time as family doctor. As to the duration, it is from three to six weeks. Dr. Vogle found the tubercle bacilli in every case of fifty on which post mortems were held.

DR. J. HENRY BARBAT read a case of

Colloid Cyst of the Ovary,

and demonstrated the specimen operated on with Dr. Frick, post-surgeon, Presidio. Miss S., age about 40 years. Enjoyed good health until six months previous to the operation, when she noticed her abdomen beginning to enlarge. She paid no attention to herself until her breathing became obstructed, and her heart distressed her on account of her large size. She then consulted the post-surgeon of the Presidio, Dr. Frick, who diagnosed some ovarian disease, and sent her to me for operation. She was operated upon March 8th, 1896, at the Waldeck. When the peritoneum was opened a large quantity of serum and colloid material escaped and the tumor presented. The hand was introduced to detect and separate adhesions and, in manipulating, the cyst wall was ruptured in several places, allowing the contents to escape into the abdominal cavity. Owing to the peculiar tenacious character of the cyst contents it was extremely difficult to empty. The only method which proved successful consisted in grasping a handful of the jelly and pulling it out; this required fully half an hour before the cyst was reduced enough to deliver it. The pedicle was small and the balance of the operation was completed without further trouble. The abdominal contents were covered with a uniform coating of the colloid material which was impossible to remove. The interest attached to the tumor, which was a multilocular cyst of the left ovary, consists in the character of the contents, which resembled wine jelly except that it was more tenacious and it was impossible to syringe it out. The amount of material removed from the patient was about three gallons.

Dr. Carpenter: The recovery of the woman was all the more remarkable when we take into consideration that the cyst ruptured before removal and covered the abdominal contents with a thick layer of the colloid material which could not all be gotten out, and when the abdomen was closed some still remained. The specimen of tumor looked as if it might have developed in a graffian follicle.

Dr. Kuhlman: I have my doubts as to this being a multilocular cyst, it looks more like a retention cyst with mucus. We had a celebrated case in Chicago of that character operated on by Dr. Finger, that being a retention cyst of the pancreas, however.

Dr. Barbat: Every part of the peritoneum, intestines, etc., were covered with at least a quarter-inch layer of this material. I don't agree with Dr. Kuhlman that the peritoneum or ovary secretes mucus as he says. As to its character, it has not been examined chemically.

Dr. Gray: A few meetings since, when Dr. Thorne read his paper on the "Relation of the Red Blood Corpuscle to Forensic Medicine," I made a plea for the use of the camera lucida as a means of differentiation between the human and animal corpuscle, and I would now like to show to the members here present the drawings spoken of at that time. There are two different sets, one human and one hog's blood. They were drawn by means of a camera lucida with a 1250 diameter lens, and I submit them as a visible proof of being able to detect a quantity of $\frac{1}{50000}$ of an inch, for so it does. These drawings are not offered in combat to Dr. Thorne, but they *do* demonstrate that under favorable circumstances they differentiate between human and other red corpuscles.

Under new business the resignation of Dr. H. N. Winton was handed in and accepted, he having discharged his obligations to the Society.

The President stated that at the next meeting Dr. W. Liliencrantz would read a paper, "Some Lessons Learned by Surgical Practice," and Dr. Kelly's paper also would be read.

On motion of Dr. Wadsworth the Society adjourned.

We have just learned that Dr. E. E. Clark of Geary street, has unfortunately broken his leg.

Resolutions Adopted by the Physicians of Santa Clara County.

San Jose, August 15, 1896.

To the Editor of the Pacific Medical Journal:

Dear Sir:—I forward you a copy of the resolutions adopted by the physicians (including all schools) of Santa Clara County in reference to their professional connection with lodges, corporations or associations of whatsoever nature.

Physicians are viewing with widespread alarm the encroachment of these public bodies upon their dignity and self-respect as well as upon their financial returns.

If the profession of medicine is longer to hold its time-honored place among men; if its devotees are to continue to occupy a decent financial standing in society, this business of doctoring lodge members at so much per head per annum must be "heard to cease."

No other class of professional men so often render charitable services. So true this is that one-third and frequently one-half of their practice is rendered without remuneration or expectation of it. Because of our peculiar function to alleviate pain and suffering, this is, perhaps, just and righteous, for Christ said: "The poor ye have with ye always." Hence, to deny our services to those unable to pay would be unpardonable humanity.

The main incentive of the men who band themselves together in such lodges as the Foresters is to get cheap doctoring. Many of them are rich and 90 per cent are well able to pay for medical services at customary outside rates.

At the general meeting when our resolutions were adopted, five of the physicians who had had large experience with lodges in this city declared that from careful estimates they had been giving their services at 15 cents on the dollar. In other words, where they should have received from $2.00 to $3.00 for ordinary visits they actually averaged in their three years' labor only 30 cents to 45 cents per visit, and received from 15 cents to 30 cents for each prescription. And this work is being everywhere done for a class of people who *should pay their physician*, and who *do pay their lawyer, their preacher, their butcher and their baker, and everybody else.*

This lodge doctoring is unsatisfactory to many lodge members, to all lodge physicians of any respectability, and absolutely ruinous to other physicians.

This is the cunning trap set by the lodges: "If you will join our lodge we will elect you lodge physician. Some of the boys don't like the doctor we have in now, still he has a good many followers. We pay him $2.50 per year for all members. If you'll do the work for $2.00 we'll elect you. It will be a big thing for you, give you an introduction into the homes of the lodge members! You get $2.00 per head for everybody whether they are sick or not. Fine thing!"

The poor disciple of Esculapius swallows the bait. The next year he is kicked out. "Some of the boys don't like him," another doctor, hungering for an increasing practice, gets gilled and does the lodge doctoring for $1.50 per capita per annum, and so on, *ad nauseum.*

The question is, shall we submit supinely to this gradual undermining and degradation of a noble profession? The great body of physicians is composed of gentlemen of culture and knowledge.

Are you willing to exchange a position of financial respectability and public esteem to come down to a 15 per cent basis and scramble with one another like unthinking cattle for the beets and pumpkins held out by these lodges? If so, I for one will engage in some other pursuit where manhood and decency are not outraged and some reward may be obtained by striving.

To remedy this evil physicians everywhere should do as the physicians of Santa Clara have done. Then the services of no one but quacks can be secured by the lodges. But quacks cannot long be endured by the members of lodges, hence the whole scheme, rotten from mudsill to roof, falls of its own gravity.

LINCOLN COTHRAN, M. D.,
Secretary of Associated Physicians in Santa Clara County.

WHEREAS, Rendering professional services at a stipulated fee per capita per annum is derogatory to the dignity of the medical profession, we, the undersigned physicians and surgeons of Santa Clara County, California, enter into the following agreement:

First.—We mutually, jointly, and individually, pledge our word of honor not to enter into any contract or agreement or renew any existing contract or agreement, either written, verbal or implied, to render medical or surgical services to any lodge, society, association or organization.

Second.—We will not render medical or surgical services to the members of the above-mentioned bodies for less compensation than we charge the general public for similar services.

Third.—This agreement shall not be construed to affect existing contracts between physicians and surgeons and the above-mentioned bodies.

Fourth.—These pledges shall take effect and be in force for a term of three (3) years from and after May 22, 1896.

This agreement shall not apply to hospitals and purely public charitable institutions.

Dr. S. M. Dodson, Leonard Pratt, M.D., Lincoln Cothran, M.D., J. K. Secord, M.D., F. W. Hatch, M.D., J. E. Trueman, M.D., H. H. Warburton, M.D., D. A. Beattie, M.D., E. H. Smith, M.D., H. F. Carpenter, M.D., C. E. Adams, M.D., H. W. Felton, M.D., W. T. Hicks, M.D., R. A. Urquhart, M.D., R. P. Gober, M.D., S. Grant Moore, M.D., J. W. Walker, M.D., F. W. Knowles, M.D., R. E. Freeman, M.D., Wallace E. Parkman, M.D., J. F. Burns, M.D., J. U. Hall, Sr., M.D., Fred. H. Bangs, M.D., Anna Flynn, M.D., J. R. Curnow, M.D., O. W. Yeargain, M.D., Chauncey R. Burr, M.D., W. D. McDougall, M.D., Dr. E. Wislocki, H. B. Gates, M. D., W. B. Hill, M.D., W. K. Davis, M.D., C. E. Hailstone, M.D., J. Turner, M.D., Elizabeth R. Osborn, M.D., W. A. Gordon, M.D., C. Y. Brownlee, M.D., Geo. W. J. Fowler, M.D., C. E. Hablutzel, M.D., J. D. Meng, M.D., Carrie H. Goss, M.D., Sarah H. Graves, M.D., J. S. Potts, M.D., Chas. N. Cooper, M.D., A. Jayet, M.D., H. C. Brown, M.D., Drs. A. and J. McMahon, A. B. Bishop, M.D., Jacob N. Brown, M.D., Robt. Caldwell, M.D., M. A. Southward, M.D., T. A. Perrin, M.D., E. LaSpada, M.D., Dr. Filipello, J. N. Johnston, M.D., Geo. W. Seifert, M.D., J. Underwood Hall, Jr., M.D., L. E. Rice, M.D., C. H. Hervey, M.D., J. L. Assay, M.D., P. M. Lusson, M.D., Thos. Kelley, M.D., H. J. B. Wright, M.D., Philip Miller, M.D., A. C. Simonton, M.D., Wm. Simpson, M.D., Elizabeth Gallimore, M.D., E. K. Macomber, M.D., R. H. Burke, M.D., J. T. Harris, M.D., J. D. Grissim, M.D., Fred Gerlach, M.D., Wm. E. Keith, M.D., C. A. Wayland, M.D., R. E. Pierce, M.D., P. G. Denninger, M. D., W. N. Williams, M.D., Irwin N. Frasse, M.D., Ed. Ulrich, M.D., Geo. D. Brownlee, M.D., J. P. Paul, M.D., Jno. J. Miller, M.D., W. T. McNary, M.D., Graily H. Hall, M.D., T. A. A. Belinge, M.D., F. B. Eaton, M.D., Ralph T. Orvis, M.D., W. L. Wilson, M.D.

Literary Department.

Under the charge of W. F. McNUTT, M.D., M.R.C.S.Edin., etc.
Professor Principles and Practice of Medicine in the Medical Department
University of California, etc.

Essais de Neurologie Clinique, Neurasthenie de Beard et Etats Neurastheniformes. Statistique bisannuelle, 1893–95, avec observations resumees recueillies á l'Establissement Hydrotherapique de Nice. Les Procedes Neurotherapiques dans Establissment Dits Hydrotherapiques en France et á l'etranger. Par le Dr. Fernand Levillain, Medecin directeur de l'Establissment Hydrotherapique de Nice, etc. Paris: A. Maloine, editeür, 21 Place de l'Ecole de Medecin. 1896. For sale by the Book Department of the Emporium, Market St., San Francisco.

This work should be translated; it would meet with a large sale. The author is a well known authority, and has embodied a great deal of useful knowledge in these essays.

Diets for Infants and Children in Health and Disease. By Louis Starr, M. D., editor "American Text-Book of the Diseases of Children." Philadelphia: W. B. Saunders, 925 Walnut St. 1896. Price, $1.25. For sale by the Book Department of the Emporium, Market St., San Francisco.

These diet lists are a convenience; and for children more important than for adults. Up to seven months the ingredients are given, but the quantities are left blank to be filled in by the physician as required. After seven months the diet lists are printed in full. The blanks are perforated and easily detached. The physician has only to see this time and labor saving book to appreciate his obligation to Dr. Starr. This constitutes one of the modern improvements that no physician under sixty years of age can do without. *Some* physicians over sixty can do without any modern improvement; can even practice medicine without recognizing the *bugs* in disease.

Borderland Studies: Miscellaneous Addresses and Essays pertaining to Medicine, and their Relations to General Science and Thought. By Geo. M. Gould, M.D., formerly editor of *Medical News.* Philadelphia: P. Blakiston, Son & Co., 1012 Walnut St. 380 pages, cloth. Price $2.00. For sale by the Book Department of the Emporium, Market St., San Francisco.

These essays are alike entertaining to the professional man and to the general intelligent reader. We consider it a rare piece of good fortune to have them thus collected in book form; they have, with very few exceptions, all been published in various journals. The author needs no introduction to the medical profession as a sound scholar and literateur. He is well known as the ex-editor of the *Medical News*, and as the author of Gould's Medical Dictionary, one of the best in the English language. Every essay is written with the object of bettering the medical profession and mankind generally. Dr. Gould is a reformer; he has no more respect for a superstition than he has for a vestigial structure. He is not, however, a rudderless radical, but rather an energetic, intelligently conservative reformer, protesting against the mind being kept in bondage by superstition, sentiment and usage.

DAME FORTUNE SMILED: The Doctor's Story. Cloth, $1.25; paper, 50 cents. The Arena Publishing Company, Copely Sq., Boston, Mass. For sale by the Book Department of the Emporium, Market St., San Francisco.

This is a readable story. The probabilities are that a physician may not be much the wiser or better for having read it, but it is like medicine, better for the patient than for the doctor. Physicians will do well to recommend it to their patients. After reading it some rich patient may endow a hospital, or, better, endow the doctor. The intention of the book is to persuade rich people that they should make their charitable bequests during their life; and why not? Why should they leave to others the pleasant task of making less fortunate fellow creatures happy?

AN ATLAS ON OPHTHALMOSCOPY, with an introduction to the use of the Ophthalmoscope. By DR. O. HAAB. Translated by and edited by EARNEST CLARK, M. D., B. S. (London), Fellow to the Royal College of Surgeons; Surgeon to the Central London Ophthalmic Hospital; Ophthalmic Surgeon to the Miller Hospital, etc. New York: Wm. Wood & Co. For sale by the Book Department of the Emporium, Market St., San Francisco.

This volume comprises the first of a series of five Medical Hand Atlases. The first 55 pages are explanatory of the Ophthalmoscope, the different methods for making examinations of the fundus of the eye, etc. The remainder of the book is made up of colored plates of the fundus of the eye. There are 102 colored figures, which show the condition of the retina, choroid, optic disc and blood vessels in health and disease. We are confident that the student will find this little work a most useful guide. To detect the marked changes in the fundus requires but slight familiarity with the Ophthalmoscope, but to be able to differentiate a healthy fundus from the almost imperceptible changes which, to the trained eye, are significant of coming disease, requires great practice. Careful study of the colored plates of the healthy fundus with frequent examinations of healthy eyes will prove of the greatest assistance to the student.

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Original Articles.

ON CARDIAC FAILURE IN HIGH ALTITUDES, AND THE USE OF RAREFIED AND COMPRESSED AIR IN DISEASES OF THE LUNGS.

By FRANK DONALDSON, B. A., M. D.
San Francisco.

The beneficial effects of residence in high altitudes is so well known that it needs no emphasis here. Most of those who have investigated the subject, among others, Paul Bert, Viault, Regnard, Miescher, Egger, have proved that the number of red blood corpuscles is increased even by a short residence in high altitudes. The general improvement in the physical condition of patients is undoubtedly due to the increase in the number of red blood corpuscles, and the corresponding increase in the hæmoglobin, which means an increased oxygen capacity and a renewal of all the vital processes and increased nourishment and metabolism.

Schauman and Rosenquist[1] have lately shown that in dogs enclosed in a glass chamber under a considerably diminished pressure of the atmosphere (450 to 480 mm. of mercury) although the other characteristics of high altitudes were wanting, the air in the chamber being moist and warm and not very pure, that in three weeks the blood count had increased from 5,000,000 to 7,200,000 per cubic mm., and the hæmoglobin from 68 per cent to 80 per cent. It is interesting to note that two months later, the animal having been at liberty, the number of the red blood corpuscles and the amount of hæmoglobin were still above the normal, viz., 6,490,000 and 80 per cent, which goes to disprove the generally accepted idea that the improvement in the condition of the blood of persons who have been sent to high altitudes does not last after returning to lower regions. Schauman and Rosenquist conclude that the effects of high altitude on the blood is not due to the dryness, but to the rarefaction of the air, and moreover that the increase in the red blood corpuscles is actual and not relative; they found that the dog's blood, after it had been at large for some weeks, and while the blood count was diminishing, contained many shadows of red blood corpuscles—a condition which has been noticed after injection of substances which disintegrate the blood.

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[1] *Centralblatt fur Innere Medicin*, May 30, 1896.

But it was not so much to the benefits of residence in a rarefied atmosphere, as to the more or less disastrous effects which often follow even a gradual removal to high altitudes; I allude more particularly to that form of cardiac failure which takes place, even in the apparently healthy, in a rarefied atmosphere, and to the severe and sometimes fatal hemorrhages which occur under the same conditions.

Some years ago, in the course of experiments with Professor Martin at the Johns Hopkins University, upon the physiological effects of rarefied and compressed air, I was struck with the fact that constant and considerable rarefaction of the air produced not only extreme dyspnœa, but also a rapid, irregular and intermittent pulse in the animals experimented upon.

The apparatus used by Professor Martin and myself was a Pneumatic Cabinet,[1] which I had been using for the application of rarefied and compressed air in the treatment of patients suffering from various forms of pulmonary complaint, and, indeed it was the disagreeable heart and circulatory disturbances which I had noticed on more than one occasion in those subjected to treatment in the cabinet that led me to make the experiments in question. The animals were placed in the cabinet in the same manner, and were subjected to the same changes of pressure as were the patients.

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[1] The instrument in question is the best I have seen for its purpose. It is large enough to hold a man in a sitting posture, is of steel, fitted with a heavy glass front and a door in the rear, air tight when closed, but capable of being opened at an instant's notice. In the center of the glass front there is an aperture through which the breathing faucet penetrates, to which a soft rubber breathing tube is attached. On the roof is a bellows, by a valve in its floor communicating with the interior of the cabinet, and there is a second valve on the upper side of the bellows communicating with the outside air. The arrangement of the mouth piece is such that the patient may be made to breathe the outside air while the air in the cabinet is rarefied or compressed. The air breathed in may be saturated with any given medicament, the spray being directly introduced into the mouth and air passages through the breathing faucet. The bellows also may be so operated as to alternately rarefy and compress the air.

The results of our experiments briefly were:[1]

I. When the animal is breathing air from outside the cabinet rarefaction of air within the cabinet causes a marked fall of general arterial pressure, but has no influence on the pulse-rate.

II. This fall of systemic arterial pressure depends on two factors: greater flow of blood to the skin when the air around the animal is rarefied, and greater accumulation of blood in the lungs when they are distended.

III. Of these two factors, accumulation of blood in the lungs is the more effective; for, if the animal breathes air from the cabinet and not from outside, rarefaction of air within the cabinet (in this case accompanied by no special expansion of the thorax) has but a trivial effect in lowering arterial pressure, unless the rarefaction is very considerable—about what would correspond to say ten thousand feet—when the fall of pressure was more marked.

IV. When the animal is breathing external air, rarefaction of air within the cabinet usually has no effect upon the respiratory rate or the extent of individual respiratory acts, unless the fall of blood pressure is considerable. *If it is considerable, symptoms of anæmia of the medulla oblongata are seen. In most cases there is more forcible dyspnœic breathing; in some there are dyspnœic convulsions similar to those which occur when an animal is bled to death,* and due to the same cause, viz., deficient blood-flow to the respiratory center.

I was so convinced from these facts that there was danger in this method of treatment for lung diseases that I laid down the following rule, viz., that before deciding a person to be a proper subject for treatment in such a cabinet, *thorough examination* should be made of the *heart; and that no person found to have insufficiency or stenosis of the mitral or aortic valve, or the slightest tricuspid regurgitation, or a fatty or weak heart, should, under any condition, be subjected to treatment by rarefied and compressed*

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[1] Experiments in regard to the circulatory and respiratory changes observed in animals placed in the Pneumatic Cabinet, by H. N. Martin and Frank Donaldson, Jr. Complete works of Professor Martin, Johns Hopkins University, 1895.

air. And moreover, it having been proved that compression of the air in the cabinet while the animal breathes external air causes a considerable rise in arterial pressure and slows the pulse from increase of intra cranial blood pressure,—I concluded that old persons, with possibly atheromatous arteries, are not, generally speaking, proper subjects for the rarefied or compressed air treatment, especially where their trouble is emphysema or asthma and compression of the air is made use of to assist expiration.

Such were my conclusions as to the danger in heart diseases of any treatment by rarefied and compressed air, and it goes without saying that the same rule would apply in sending patients to high altitudes. The late Dr. Loomis, of New York, was the first to emphasize this fact, and in the *New York Medical Journal* of June 12th, 1886, he gave the history of six cases (he had however records of 22) of cardiac failure directly due to removal to high altitudes. In this paper Dr. Loomis showed that not only had his patients, whose hearts were healthy, suffered from passing cardiac failure in the rarefied atmosphere, but that permanent cardiac trouble had resulted in several cases as the direct result of the cardiac attack.

Dr. Loomis concludes as follows: "In these cases which I have quoted, as well as similar ones which have come under my observation, the ventricular dilatation, which was unquestionably the cause of the sudden development of the distressing symptoms, and from which dated the commencement of the fatal issue, seemed to be directly due to the effects, on the *cardiac circulation, of the change from a low to a high altitude*. I do not maintain that sudden cardiac dilatation might not have developed in any one of these cases under other conditions, but I do maintain that change in atmospheric pressure is a very important cause of sudden ventricular dilatation when any degree of heart insufficiency pre-exists."

Finally Dr. Loomis declared that only with danger could those whose heart was weak, fatty or diseased, pass rapidly from a low to a high altitude; in other words he had arrived at the same conclusion from clinical experience which I had arrived at experimentally. This being established, what is the cause of the dyspnœa and cardiac failure at high altitudes?

It is very generally stated that the cause of dyspnœa and shortness of breath in high altitudes is the want of oxygen; that the system needing oxygen, more blood has to be sent through the lungs in a given time, thus increasing the amount of work to be done by the heart, which often dilates under the sudden strain. Such explanation, though applicable for very high altitudes, is at the same time based on misconception.

1st. The partial pressure of oxygen at normal atmospheric pressure is equal to 152 millimeters of mercury.

2d. So long as the partial pressure of this gas remains above 25 millimeters of mercury (one inch) the amount taken up by the blood will depend upon the amount of hæmoglobin in that liquid, and not on how much oxygen there is in the air.[1]

3d. The partial pressure of oxygen even at so great a height as 10,000 feet would be 101 millimeters of mercury, at which the hæmoglobin could get all the oxygen necessary.

What is the *influence of the normal respiratory movement upon the circulation ?*

In any given inspiration the chest cavity is enlarged, negative pressure is created in the thorax; not only the lungs, but the right side of the heart and the intrathoracic portions of the systemic veins, are expanded in consequence, and the blood is drawn toward the great veins and right side of the heart.

The first effect of the negative pressure of inspiration is a diminution of pressure on the heart and intrathoracic vessels, and a consequent sucking of blood into the right side of the heart, which in turn is sent through the increased area of the lung vessels to the left heart, and thence to the systemic circulation, causing a rise of pressure. Another important element in the respiratory waves of blood pressure is the change which takes place in intra-abdominal pressure in inspiration. Luciani and Schweinberg maintain that the descent of the diaphragm causes increased abdominal pressure, which assists the rise in arterial pressure, 1st, by driving the blood out of the abdominal veins toward the heart; 2d, by compressing the abdominal arteries (a questionable supposition). Another cause of increased pressure during inspiration is the increase of heart rhythm, due, according to Fredericque (*Archives de Biologie*, 1882), to a rhythmic automatic discharge from the cardio-inhibitory center—the discharge depending in some way on the rhythmic discharge from the neighboring respiratory center.

The effects, then, of the negative pressure following inspiration, are an increased blood-flow to the large intrathoracic veins, and to the right heart; an increased heart capacity, especially of the right side; an increase in intra abdominal pressure, forcing onward the blood; an increase of capacity in the pulmonary veins; an increased blood-flow through the lungs and to the left heart; an acceleration of the heart rhythm, and, finally, increase of systemic arterial pressure.

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[1] Martin, Human Body, p. 384, 1st edition.

Such are the circulatory changes which take place in ordinary respiration. It remains for us to inquire how the cycle may be affected in high altitudes.

However much the phenomena of normal quiet respiration may be changed in a highly rarefied atmosphere, the chief and immediate cause of dyspnœa and cardiac failure, may, I think, be traced to *the diminished pressure on the heart walls and their consequent dilatation.* The fact may be made plain as follows:

The external air presses against the interior of the lungs with a pressure equal to that exerted on the same area by a column of mercury 760 millimeters high, it distends them and pushes them against the inside of the chest walls, the heart and great blood vessels and contents of the thorax. The pressure thus exerted is not equal to that of the external air, since some of the total air pressure on the inside of the lungs is used up in overcoming their elasticity (equal to six millimeters of mercury), and it is only the residue, equal to a column of mercury 754 millimeters high, which pushes the lungs against the heart and great vessels. The actual pressure then on the heart walls, normally, is equal to 754 millimeters of mercury.

How is this pressure changed at an altitude, say, of 10,000 feet? The total pressure of the air at that altitude would be equal to a column of mercury 501 millimeters high. The pressure, then, upon the lungs and whole body would be lessened. But, as the person is breathing the same air as that around him, the respiratory act would be unchanged. Professor Martin and the author found that neither the frequency nor depth of the respiratory act were changed in an animal placed in a rarefied atmosphere. There would be (as, again, we found) a slight fall in blood pressure, which would be very temporary, for the circulation being a system of closed tubes, is but little, if at all, affected, and the pressure rises at once to the normal, owing to increased vasomotor action. There would be no increase of negative intrathoracic pressure since the lessened pressure on the chest box is not sufficient to cause increase of chest expansion.

Finally the only organ directly affected at moderate altitudes (of course at very high altitudes, 20,000 to 30,000 feet, the dyspnœa from want of oxygen would be felt), say from 3,000 to 20,000 feet, would be the heart, and for this reason. As we have said, the pressure on the heart usually is equal to 754 millimeters of mercury. At an altitude of 10,000 feet, however, the general pressure being 501 millimeters, the pressure of the heart would be only 495 millimeters of mercury. Now the arterial pressure, and, therefore, the intracardiac pressure, would be the same as when the pressure on the heart walls was 754 millimeters. But one result could follow such conditions, and that would be a stretching and dilatation of the heart walls—especially of the right side—and this is precisely what is found in many of those who go into high altitudes for their health, or for other reasons, and what we found in experiments upon animals. The heart, weak and diseased possibly beforehand, is unable to stand such strain as is put upon its dilated walls, and so we find its contractions weak, intermittent and irregular—we have the murmurs, the syncope, the dyspnœa, which are often so marked in high altitudes.

Of course, the want of oxygen is an additional cause of dyspnœa in very high altitudes, but we are quite justified, on physiological grounds, in saying that at the altitudes to which persons are ordinarily sent—the hæmoglobin can take up all the oxygen the system needs, and the cardiac dilatation is the sole cause of the dyspnœa and indirectly of the pulmonary hemorrhage which takes place in high altitudes.

The treatment of pulmonary troubles by rarefied and compressed air has been extensively practiced in Europe since 1838, and there are now pneumatic chambers of various kinds in Lyons, Montpellier, Nice, St. Petersburg, Vienna, Wiesbaden, etc. And though good results have been claimed by many men of prominence, after a large experience, both with pneumatic chambers and with such apparatus as that of Waldenburg, Cube, Schnitzler, Giegle and Meyer, etc., I am extremely skeptical on the subject. I did, however, obtain some satisfactory results from the use of the pneumatic cabinet described in the footnote above. As I said, this apparatus is so made that pressure can be removed from the chest walls as the patient sits in the cabinet while at the same time he breathes the relatively condensed external atmosphere. The inhalant, in the form of a spray, is directed into the mouthpiece by which the patient is breathing, and the apparatus is so constructed that the air may be alternately rarefied and compressed and a very considerable increase in the respiratory movements brought about. The benefit to the patient in this apparatus really comes, I am inclined to think, from the mechanical distension of the lung alveoli, the beneficial effects being most marked in those cases where the lung was bound down as a result of pleuritic adhesions, or where there was more or less atelectasis following pneumonia.

I am also inclined to believe that I had permanent good results where there was beginning consolidation at the top of the lungs in which the only signs were the pulmonary crumpling, the mucous click, the dry rale, so characteristic of phthisical break-down. In these cases the daily blowing up of the collapsed globules which follows rarefaction of the air in the cabinet, unquestionably if it did not cure, certainly staved off trouble. Speaking generally of such apparatus, it is expensive and clumsy, and after very considerable experience I do not think that the play in such cases is worth the candle either for the physician or the patient.

THE mortality from consumption has decreased two thirds in forty years.

THE transparent media of the eye has been found to offer obstruction to the passage of the X-rays similar to that of glass.

THE Kings County Hospital is overrun with patients, over 50 per cent of them being taxpayers of the county, the rest are workingmen.

THE Health Department of Oakland in their report for August give the total number of deaths as 55. Consumption, 9; valvular disease of heart, 4; old age, 3; in all other cases but one or two. Total number of births, 70. Males, 41; females, 29.

THE Board of Supervisors, of Chico, has, through the Clerk, notified W. L. Bradley, the Health Officer of Chico, not to employ physicians to make examinations in cases of deaths of persons inside of the City of Chico who die without an attending physician.

MYXŒDEMA—WITH A REPORT OF TWO CASES.

By G. R. HUBBELL, B. S., M. D.,
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Previous to the publication of Sir Wm. Gull's paper in 1873, myxœdema had not been recognized. In 1877 Ord described the disease more fully, suggested the appellation which it now bears, and recognized its connection with abnormal states of the thyroid gland.

Since that time the studies of the experimental physiologist, the physician and the surgeon have given the thyroid gland the dignity of an organ with diseases of paramount importance; unveiled some dark pathological problems, and raised a reasonable hope in the treatment of a class of hitherto incurable diseases.

Myxœdema is not specially confined to any locality, although it would seem to be more frequent in the temperate than in the torrid zone, in those countries where sudden variations of heat and cold are found, and probably most prevalent where its kindred affection, cretinism, exists. It is preeminently a disease of the female sex, they being affected in the proportion of 4½ to 1 of men. Of 109 cases tabulated by the Clinical Society Report, 94 were women and 15 men.

Hun and Prudden recorded 150 cases, 113 of which were females, 32 were males, and in 5 no sex was mentioned. In most instances myxœdema occurs during the middle period of life, between the ages of 35 and 50. Hun and Prudden give the average age of 76 women as 38, and of 20 men as 42.

It occasionally occurs in childhood, and rarely in old age. Pregnancy and lactation seem to be marked causative factors, thus 60 women having the disease had had over 300 children and 29 miscarriages. Heredity plays a very small role.

Depressing influences of all kinds, anxiety and shock, precede the disease in some cases, and exposure to cold, not only precipitates the disease, but produces a marked deleterious influence after it has developed.

Horsley made two series of experiments upon monkeys. In the first no after treatment followed the thyroidectomy, and the animals lived on an average of 24 days. In the second the animals were kept at a temperature of 90° F. The early nervous manifestation which usually follows the operation, and which caused death in the first experiment, was slight. The second or mucinoid stage was much ameliorated, and they finally died in a cachectic condition, living on an average of 125 days.

The clinical picture of myxœdema is characteristic. On observing the patient one is struck by the general bulkiness of the entire body; the heavy, expressionless, coarse features, the swollen, wax-like appearance of the face, the puffy, translucent eyelids, the bright capillary injection usually present on the cheeks, the scanty, harsh, dry hair, the scaly skin, the clumsy manner, the measured, monotonous drawling speech, and the slowness of all mental operations.

The bulkiness of the body is the result of an accumulation of solid œdema and subcutaneous fat. The question of mucin as a cause of this condition has been much discussed. Some observers claim that an excess is found in all cases, especially in the operative myxœdema of animals, while others assert that it is seldom or never present. Prudden made a chemical analysis of the skin in a typical case of myxœdema and found no increase in mucin over that of an individual dying from some other disease. He explained the non-pitting nature of the œdema by the fact that it is largely confined to the superficial layers of the corium, where the fibrillary interlacement is so fine that the fluid is not easily driven away by pressure or influenced by gravity.

The accumulation of subcutaneous fat was found by Prudden to have more the characteristics of atrophic or embryonic fat than that of a well nourished individual. The cells were unusually distinct in outline, round in contour and granular, having large nuclei. The skin is dry and scaly, devoid of perspiration and not unlike that seen in some cases of ichthyosis. It may be loose and baggy, especially over the hands, studded here and there with warts and moles, and of a brownish, dirty, dingy color.

Prudden found the following changes on microscopical examination. There was an irregular accumulation of superficial epidermal cells. At the junction of the reticular and papillary layers of the corium the lymph vessels were dilated, the interfibrillar spaces were large, and appeared as if distended by some homogeneous material, the nature of which could not be determined, and the fibrillæ and connective tissue cells were unusually distinct. The blood vessels in places were surrounded by collections of spheroidal cells.

The nutrition of the hair is decidedly interfered with. Hamilton described a man whose hair had been gray previous to his illness, but as the disease advanced it became black. The head may become partially or entirely bald, and the pubis perfectly bare. (Case 1.) This condition is undoubtedly caused by a nutritional disturbance of the hair follicle, although where microscopical examination has been made there has been found an atrophic condition of the bulb and papilla of the hair follicle, the shaft and root sheath being entirely replaced by the cell proliferation, and the whole surrounded by fine nucleated fibrous tissue. Similar changes are likewise found in the sweat and sebaceous glands.

Perspiration as a rule is much diminished or entirely absent, although in some cases it has been found to be profuse. Thus J. Campbell, of Montreal, described a patient who had besides the usual symptoms a ravenous appetite accompanied by profuse perspiration and tremor occurring every two hours, and relieved by taking nourishment.

The puffiness and translucency of the eyelids and the elevation of the brows (case 2), (the latter probably due to a contraction of the corrugator supercilii in an effort to keep the eyes open), together with the looseness of the tissues about the face, gives the features a coarse, stolid, expressionless appearance. The swollen tongue and the infiltrated pharynx and larynx render the voice peculiarly harsh. Guinon described a case of myxœdema in a boy of 13, characterized by severe attacks of dyspnœa. On post-mortem examination the interior of the larynx, especially the aryteno-epiglottic region, was thickened. This thickening was due to a deposit of fat in the sub-mucosa. Morvan considered the changes in the voice due to relaxation and paresis of the vocal cords. The speech which is slow and uncertain is the result of, 1st, a mechanical interference with the organs of speech in consequence of their swollen condition; 2nd, an impairment of the motor nerve speech mechanism.

In a certain proportion of myxœdematous patients there is a marked increase in the salivary secretions and a thin watery discharge from the nose and eyes. The former, especially the parotid secretion, has been found to contain a large quantity of mucin.

Cases of myxœdema constantly complain of being cold, even to such a degree that cold drinks are repugnant, and the temperature is almost invariably found to be subnormal. A peculiarity of the temperature is its unilateral character, there being at least a difference of nearly one degree between the two sides of the body. In one of Duckworth's cases the right axillary temperature was 94.4° F., the left 97.2° F. In Ord's fatal case the temperature below the right mammilla was 94.9° F., below the left 97° F. The cause of the lowered temperature is obvious. If we take into consideration the fact that there is diminished radiation from the surface, in consequence of the dry skin, there is no other explanation than that of a diminished heat production within the organism.

Hemorrhages from the mucous membranes, and profuse menstruation are frequently seen. Although the changes in the blood are not at all characteristic, there being in a certain proportion of the cases varying degrees of anæmia. The pulse is usually slow, the arterial tension increased and the radial arteries more or less atheromatous. The excretion of urea is constantly below the normal. At times the urine contains a small quantity of albumin and a few granular and hyalin casts.

The nervous manifestations of myxœdema are very variable. Fatigue is a constant symptom, so much so that the performance of the ordinary duties of life produce a degree of lassitude out of all proportion to the energy put forth. These patients are consequently inert and sluggish. Putnam described a woman whose friends would leave her with one boot on and the other in her hand, and return an hour later to find her in the same attitude, or at times she would lean against the mantel-shelf and remain motionless for hours.

This condition may be aptly compared to a cold-blooded animal, or as Bramwell puts it: "They remind one in a mild degree of an animal which has been deprived of its cerebral hemispheres." There is genuine motor enfeeblement and diminished electrical excitability (60 per cent of cases), and such patients are unable to execute delicate movements, although at times they are able to do heavy lifting. This would indicate a condition closely allied to incoordination, as indeed, in many instances varying degrees of ataxia have been found.

The special senses are not infrequently impaired, thus hearing may be diminished and tinnitus and buzzing of the ears may be present with anomalies of taste, sight and smell. The mental lethargy goes hand in hand with the physical inertia. The thoughts are evolved slowly and some time may elapse before a question is grasped by the patient. Memory is impaired and emotional activity diminished.

M. Allen Starr says: "That it is evident that both the afferent channels of communication from the external world, and the efferent paths of impulse to the muscles, are in some way blocked by the disease, while the internal processes of mental association and activity are also hampered and deflected from their ordinary course." In the later stages of myxœdema when mental aberration supervenes it may take the form of hallucinations of hearing or sight, or there may be well-marked symptoms of acute or chronic mania, dementia or melancholia, somnolence and headache during the day is frequent and sleep is disturbed by unpleasant dreams.

The nervous phenomena as a whole were at first considered due to an accumulation of mucin in the brain. Later developments showed this to be incorrect, and subsequently it was looked upon more as a result of a nutritional disturbance of the brain cells. Whitwell gives the following results from the examination of the brain in a typical case of myxœdema with well-marked mental symptoms: The brain was œdematous, the convolutions flattened. Sections taken one inch from the ascending frontal convolution showed the processes of the nerve cells diminished and distorted. The nuclei were irregular and vacuolated. In some places the cells had entirely disappeared. F. Capobianco found a similar condition in the brain and spinal cord of thyrodectomized dogs.

In taking a retrospect of the investigations and discoveries which lead up to an understanding of the essential pathological lesion of myxœdema, one is struck by the slowness of its evolution. A period of nearly 20 years elapsed from the time that Gull first called attention to the disease until its cause became an uncontrovertible fact. During this time numerous investigators labored diligently and gave the fruits of their discoveries to the world.

Ord, who was the first to intimate the relations of myxœdema to lesions of the thyroid body, seemed to overlook it entirely as a causal factor. He noted the conditions of the skin and pointed out the analogy of the general condition to that of the embryo in which the mucinoid elements of the connective tissue are predominant and spoke of it as a reversion toward the embryonic state. He concluded that the symptoms of myxœdema depended on the fact that the peripheral nerve endings were so padded by solid material that they were incapable of receiving the healthy impressions which, when transmitted to the higher nerve centers, regulate both bodily and mental functions. Savage and Goodhart placed the origin of the disease in the nervous system.

Thaon supposed three agents at work: a profound anæmia, a nutritional cutaneous disturbance and an affection of the higher cerebral centers which produced the peculiar nervous phenomena.

Hadden suggested a condition of angio-spasm from a lesion of either the vaso-dilator or vaso-constrictor filaments with consequent diminished tissue waste and lessened production of heat. He explained the œdema by spasm of the lymphatics.

Henrot sought the primary lesion in a diseased condition of the hypophysis cerebri and based his assumption on the fact that this organ was frequently found in a hypertrophic condition.

Fournier, Morvan, Charcot and others looked upon myxœdema as a tropho-neurosis.

Mahomed considered myxœdema closely related to Bright's disease, and placed the primary lesion in the kidneys. He thought that its frequency in women was due to the sympathetic system of the female being more susceptible to degenerative changes than that of the male.

Bournville was the first to base the primary pathological lesion upon the destruction of the thyroid body and confirmed his belief in the surgical works of Riverdin, Kocher, Baumgarten, Bircher and others who demonstrated that total extirpation of the thyroid gland from any cause almost invariably provoked a cachexia perfectly analogous to that which the neuropathologist knew as myxœdema.

While this work in establishing the identity between operative strumapriva and idiopathic myxœdema, and their relation to the abolition of the thyroid function, was going on, other experimenters were studying the effect of thyroid transplantation and thyroidectomy in animals. Von Eiselberg extirpated the thyroid in nine dogs and immediately transplanted it into the abdominal cavity. Eight of the animals died from acute myxœdema, and on post-mortem examination the transplanted glands was found degenerated. One lived and was killed several months later and the autopsy showed the gland to be vascularized and normal. A subsequent experiment in which the gland was transplanted into the sub-peritoneal tissue resulted in three failures and one success. He furthermore excised one-half the thyroid gland in cats and transplanted it beween the peritoneum and transversalis fascia. One month later he removed the remaining gland from the neck and no disturbance followed. Two months later the transplanted portion, normal in appearance, was removed and was soon followed by tremor, tetanus and death. He also found that thyroidectomy in lambs was followed in the course of time by arrested development, enlarged occiput, defective growth of the hind parts of the body, lowering of the temperature and diminished intelligence.

Fuhr and Schiff proved from operations upon dogs:

1st. That myxœdema would not follow unless at least two-thirds of the thyroid gland was removed.

2nd. That interference with the cervical sympathetics and carotid arteries would not, as Munk and others claimed, produce the disease.

3rd. That it might supervene and subsequently disappear providing the remaining portion of the gland hypertrophied and the accessory glands, if such were present, enlarged.

4th. In dogs accessory glands are always present, providing the animal survives the operation.

Neudorfer, Hofmeister, Horsley and others confirmed these views and found that the influence of thyroidectomy was most marked during the developmental stages of life, and that the thyroid seemed to have a direct regulating influence upon the nutrition and growth of the generative organs, especially in the male.

Gley discovered two small glands in rabbits lying on either side upon the carotids, structurally analogous to embyronic thyroid tissue, which enlarge after thyroidectomy and assume the function of the obliterated thyroid. Similar structures were found by Sandstrom in man situated at the point of entrance of the superior and inferior thyroid arteries. An inter-capsular operation would leave these glands undisturbed.

It remained for the master mind of Horsley to definitely settle the question by experiments upon animals, especially monkeys. He demonstrated that thyroidectomy produced a malady characterized by three successive stages: The neurotic, manifested by tremor, anæsthesia, contractures and convulsions; the mucinoid, characterized by hebetude and mucinoid degeneration of the connective tissue; and the atrophic, where imbecility and complete atrophy, especially of the muscles, supervened. A disease that was closely allied to cretinism, strumapriva and idiopathic myxœdema, all depending upon one constant pathological lesion, the obliteration of the thyroid function. Why myxœdema should follow the obliteration of the thyroid gland is purely a matter of conjecture and theory.

Zanda found that thyroidectomy could be performed on dogs without evil effect providing the spleen had been extirpated a month previous. He considered myxœdema the result of a toxic principle sent into the blood by the spleen which was normally neutralized by the presence of the thyroid. Schiff says that the thyroid furnishes a fluid which is necessary for the nourishment of the nervous system. Golgi and others think that it removes an unknown ferment from the blood whose accumulation is detrimental to the nervous system.

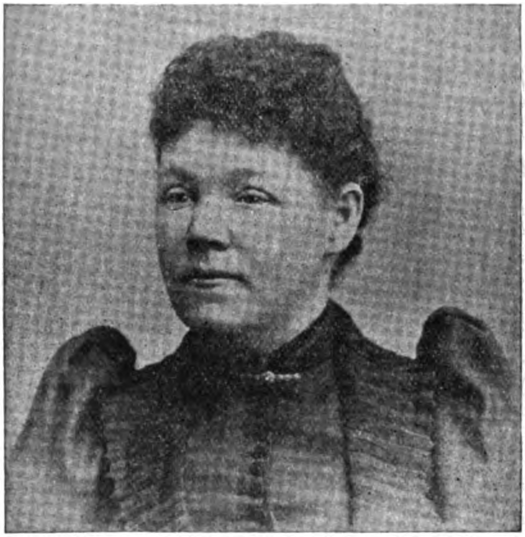
Horsley concluded that the thyroid gland was a regulator of nutritive changes, and that it specially controlled the metamorphosis of the albuminates into products of final transformation. If the function of the thyroid was interfered with, transformation of the albuminoids was arrested and the nutrition of the organism thereby disturbed. The final nature of the changes which produce the destruction of the thyroid is a riddle, the solution of which we have not reached. The consensus of opinion seems to favor the assumption that an unknown cause, probably in the nervous system, produces the atrophy of the gland.

As to the treatment of myxœdema, volumes have been written—little need be said. It resolves itself into supplying the function of the thyroid by artificial means. Transplantation suggested itself early in the history of the disease, and in the present status of aseptic surgery should be the treatment *par excellence.* Thyroid feeding, the administration of the dessicated thyroid, the hypodermic injection of the glycerine extracts, inunctions of thyroidine and thyroido-eiethism, all have been found successful and all occasionally have failed.

As in any potent remedy, there is a danger line over which it is hazardous to pass, so it is with the administration of thyroid. An overdose may produce alarming and dangerous symptoms, such as weakness, headache, rapid feeble pulse, angenoid attacks, rise of temperature, cyanosis and even death.

In conclusion, I will present the following cases: Case 1 occurred in my own practice. For the notes of Case 2 I am indebted to Prof. J. O. Hirschfelder, who generously permitted me to make use of them.

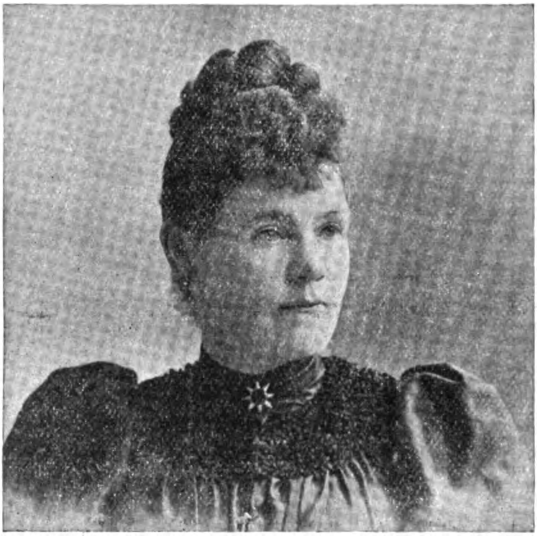
Case 1. Miss X., age 38; presented herself on Oct. 1, 1893, with the following history: One brother died of Bright's disease, otherwise the family history was negative. Patient had the usual diseases of childhood. At the age of 16 had typhoid fever, otherwise was well until seven years ago, when she noticed that mental or physical exertion produced an unusual amount of fatigue. Her legs felt weak and the hands and feet seemed swollen. She had frequent attacks of vertigo attended by dimness of vision. The skin then became dry and scaly and the hair commenced to fall out, the head felt as if tightly bandaged, there was a discharge from the nose and eyes, and she could not get warm even on the hottest day. The gait became more and more unsteady, she became gloomy and despondent



Case 1. Figure 1.

and suspicious of those around her. These symptoms gradually grew worse.

Physical Examination.—Patient is well developed, fairly well nourished, but excessively pale. The skin of the face is thickened, the features coarse, the eyelids puffy and translucent, and there is a bright red spot upon each malar region. The scalp is dry and scaly, the hair thin and ragged. The teeth are defective, and there is a thin watery discharge from the nose. No thyroid can be felt in the neck. Thorax is well formed, lungs are normal, area of cardiac dulness normal, tones clear but feeble. Liver and spleen not enlarged, the abdomen is rather large and is somewhat distended. Over the entire body and extremities the skin is very dry and covered by fine dry scales. The hair has entirely disappeared from the axilla and pubes; mentality is very sluggish, and it seems difficult for her to grasp the questions asked. The tongue is too large for the mouth, the articulation is scanning in character and the voice has a peculiarly harsh sound. Sensation to pain is not so acute as in a normal individual. Reflexes are diminished. She passed 38 ounces of urine in the past 24 hours, sp. gr. 1016, does not contain albumen, sugar or casts. Temp., A. M., 96.4° F., P. M., 98° F.



CASE 1. Figure 2.

On Oct. 3, 1893, glycerole of thyroid, ʒi = $\frac{1}{12}$ of a gland, was ordered three times a day. Picture No. 1 shows her condition.

For the three following days the temperature ranged from 96.5° to 97.6° F., in the morning, to 98.6° to 99° in the evening; pulse, 65. On Oct. 7th the urine was diminished, the pulse slow and feeble, and there was some dyspnœa, and œdema of the lower extremities. On Oct. 9 she passed 80 oz. of urine otherwise her condition was the same as on the previous day, Oct. 11 she feels stronger; ordered ʒiii = ¼ gland, three times a day.

With slight variation the temperature remained the same until Nov. 1, when dessicated thyroid was substituted in place of the glycerole. She took gr. iiss three times a day, which equaled ½ a gland daily. By Dec. 1 her condition had very much improved, she lost rapidly in weight, the temperature became normal, the skin moist, fine hair appeared in the axillæ and pubes. The mind was clear and the speech much more distinct and less drawling. From that time on the improvement was uneventful.

Photograph No. 2 shows her much improved on July 1, 1894.

I saw her on Aug. 27, 1896, she was feeling perfectly well. With the exception of a little dryness of the skin upon the abdomen every vestige of her previous disease had banished. She has not taken any thyroid for three months.

This was a typical case, and the disease was so apparent that from the first there was no question as to the nature of the trouble. The peculiar features were, that from the beginning she took large, frequently repeated doses of the thyroid without ill effect, furthermore the drug produced marked diuresis, the urine doubling in quantity in 24 hours. This effect is rather unusual and seldom occurs in other than healthy individuals.

Case 2. Mrs. B., age 33. First came under observation on Nov. 25, 1893, and presented the following history. No family history of hereditary disease. 17 years ago patient had what was called typhoid fever. Otherwise she was well until Dec., 1892, when she complained of being cold and noticed that her voice was husky. At that time her arms and legs seemed larger than they formerly had been, the hair commenced to fall out and the skin was dry and scaly. She then commenced to have difficulty in speaking, the mind was sluggish and the memory poor. She was very nervous and became exhausted on the slightest exertion. For several months the period has been irregular and the flow profuse.

Physical Examination.—Patient is a well developed, moderately well nourished, pale individual. The features are coarse, the eyelids thickened and the base of the nose broad. The eyebrows are highly arched, muscular movements about the face are normal. The speech is slow and drawling, when spoken to she answers slowly and seems to have some difficulty in grasping the meaning of the question. The hair is dry and falling out in places. Skin is dry and somewhat scaly in places. No thyroid can be felt, lungs and heart normal; liver and spleen not enlarged. The hands are large and rough, and the structures of the forearm are harder than normal. There is analgesia of the right side. Smell is diminished on the right side and hearing and taste upon the left. Both ovarian regions are sensitive. There is slight œdema of the lower extremities. Urine sp. gr. 1018, trace of albumen, no sugar. Pulse 72, temperature 98° F.

As the case was sent from the interior for consultation, I had no further opportunity of observing her.

MALARIA.

By P. C. REMONDINO, M. D., San Diego, Cal.

The earliest American observers who arrived in California, influenced by the known results that accompanied morning valley fogs elsewhere, on seeing the early morning fogs in the valleys of Southern California, imagined that of necessity these valleys must be the abiding place of malarial fevers. Gen. Emory who, in 1846, came over the New Mexico plains with Gen. Kearny from Fort Leavenworth to San Diego, in speaking of the Southern California valleys, south of Los Angeles, observed that "the climate is perhaps unsurpassed in salubrity. With the exception of a very few cases of ague and fever of a mild type, sickness is unknown." From this we would be led to believe that malarial affections were endemic in our valleys. I will not say that a succession of very wet years may not produce this result, but in general, the causes that produce endemic malaria are absent. We lack the luxuriant vegetation, the hot days, the ground moisture, and underlying water, slow decay of vegetation and all the other requisite conditions that favor the production of a reign of miasma. Our vegetation proverbially is scanty. I have heard of wild oats being so tall that they would completely screen a horseman, but such a condition of the hills surrounding San Diego is only obtainable after a few years of very *wet* winters, and a gradually succeeding number of crops of wild grasses and wild oats that had reached full maturity. It is only after a few such years that we can hope to have the ground sufficiently moldy and seeded to produce those luxuriant crops. There have been no such seasons in the past thirty years. After such a season there may, perhaps, be some general mild malaria, but not otherwise. Our grass dry and cure themselves even when rooted but never decay.

The fogs of Southern California are not land fogs, nor do they in any way emanate from any ground moisture, nor from the steamy emanations arising from any heated and moist masses of decomposing vegetable matter. Our fogs are purely sea-fogs or the nightly condensation of the moisture contained in the sea air. Furthermore, with any great rise of temperature we have a corresponding great fall of atmospheric humidity, which at once puts an end, by its extreme dryness, to any decay. From that it will be seen that, although we may have morning fogs, heat of over 100° F., followed by cool nights, that we totally lack the atmospheric conditions—even if we had the vegetation—to favor the production of malaria. That combination of heat and moisture so fatal on the Chagres river and in American tropical countries is here conspicuous by its utter absence.

Neither can I say that man may not, in his unthinking moments, industriously work to generate some malarial influences about his home. I have treated families so afflicted and know that by the removal of the cause the effects have disappeared. Some fifteen years ago I attended a family on one of the most comfortable ranches situated in one of our healthiest valleys. They were all down with a violent dysentery of undoubted malarial origin. After prescribing for the family and directing the nurse as to her duties, I proceeded to investigate into the possible cause of the outbreak. I first visited the source, location and quantity of the water supply. This came from two sources. One being from a well situated on sloping ground in a grove of giant sycamore trees. The ground drained easily towards a creek in the center of the valley and there was no chance for either surface-water contamination or for drainage from any barnyard or cesspool. The other water supply source was from a well-aired and very well constructed cistern. The roofs that gathered the water were cleanly and the first rains were used to wash them. I at once eliminated the water supply as a possible source of trouble to this family and turned my attention to their habitation. The closets were away from the house and in a cleanly-kept condition. The kitchen was well ordered and its drains in excellent condition. The house was raised sufficiently from the ground—the floor stood about three feet above the ground—but there were no ventilating windows in the brick foundations; the bad feature was the great amount of shrubbery and plants that with the manuring and mulching was growing next to the house on every side except that occupied by the kitchen. This cultivated area was kept well watered. On examination much of the brick foundation was found to be softened and rotten, and on breaking a hole through the mass it was found that the soil underneath the house was sodden and musty, and the air that escaped very disagreeable. This accounted for a musty smell I had noticed in the house. I advised cutting away all near plants, and the construction of a new underpinning to the house which should provide for thorough ventilation.

In the course of many years' practice I have met many such incidents. I now advise the level grading of the soil upon which the house is to be built, and a coating of asphaltum to be well spread over the entire surface that the house will cover. I then advise a three- or four-foot wide area of asphalt or concrete with cement around the building, the area space having a raised lip on the inside line so as to prevent any rain or other wash-water from running underneath the house. On no account do I ever permit flowers or shrubs immediately next to the house. There can be no objections, however, to these plants being on the outer edge of a porch, where the porch is wide, and where a separate foundation supported the house. The under area covered by the porch should, in these cases, always be well ventilated. All these precautions are necessary where the house is built in the center or on the side of cultivated grounds, whether these contain several acres or only one or two lots. I have often seen lawn sprinkling carried on to such an extent by parties as to flood their own and their neighbors' cellars, or their under-the-house space. All of which shows us that we cannot be too careful how we treat our house under-soil or the foundation.

While we have no endemic malaria, not at least in the sense in which we mean when we speak of the Mississippi valley or Indiana, or of Peninsular Virginia malaria, there is no doubt but that we can create malaria through our carelessness. We will not even then have any marked intermittent exhibitions, but we can most certainly develop some forms of malaria. The nature of the soil—a hard impervious hard pan underlies at one or more feet the upper or loamy soil in most localities—makes it absolutely necessary to observe some precautions, as otherwise in the rainy season any decaying animal or vegetable matter washed down from the surface and held in solution by the water which impregnates the ground, may spread infective matter over a large area, and under houses where it may do future damage. It is equally true, however, that the dry warm spring, with its sea and land breezes, and warm sunshine, will soon dissipate any malaria so generated; still, it is better not to incur any risk, and while following Anthony Wayne's advice to trust in Providence, we should also remember his further advice "but keep your powder dry."

Speaking for Southern California, I can confidently say that we have no indigenous endemic malaria. Our air may at times lack the vim of the San Francisco air, or that of the mountains to our east, or even not be as invigorating as that which sports on the waves of the Pacific to our west, but of indigenous malaria we have none. Spaces covered by board sidewalks, low spaces under buildings, accessible to street water, but not to the influence of sun and air, are dangerous, and need looking after in California as much as they do in Indiana.

A GRADUATE BUT NOT A DOCTOR.—The Edinburgh College of Physicians, following the example of her Irish neighbor, has appended to her laws the following: "The diploma granted by the College shall not entitle the holder, by virtue of such diploma, to assume the title of doctor, or to append to his name the title of Doctor of Medicine, or the letters M.D., or other abbreviation which might suggest that the holder had obtained the degree of Doctor of Medicine from the University."

Sections

MEDICINE.

In charge of SAM'L O. L. POTTER, M. D., M. R. C. P. L.,
Professor of Principles and Practice of Medicine in the College of Physicians and Surgeons of San Francisco.

The Penalty for Non-Vaccination.—Gloucester, England, the scene of Jenner's life and work, has recently suffered an epidemic of smallpox, the like of which has not been experienced by any other English town within the memory of living man. A detailed report thereon, published in *The Times* of Aug. 25th last, furnishes the following statement of facts: Between 1886 and 1894 the number of public vaccinations had fallen from 1,095 to 34, and in ten years the total was only 2,378, though in that period 15,682 children had been born in Gloucester and only 3,176 had died. The epidemic began with a case of smallpox in an unvaccinated child which was concealed and treated as measles. The end of the epidemic was certainly not due to effective isolation nor to the exhaustion of the virulence of the infection. When the city began to be boycotted the citizens appealed to the city council; the council appealed to the doctors; and the doctors replied that isolation, vaccination, and re-vaccination were the necessity of the time. Finally, the board of guardians instructed the vaccination officers to carry out the law. More than 36,000 vaccinations were effected. The epidemic was brought under control in May, and by the end of July it had been stamped out. The epidemic had attacked 2,036 persons (the population being about 40,000), of whom 443 died. The guardians are now prosecuting vaccination defaulters with energy as great as their previous indifference.

The Berlin Death from Diphtheria Antitoxin.—After a long delay the official report of the post-mortem examination in the case of Professor Langenhans' child has been published. A report upon the microscopical and chemical analysis of the antitoxin administered had previously been made public. The post-mortem examination was performed by Professor Strassmann and Dr. Mittenzweig, medical officers to the Berlin law courts. Previously to the fatal injection the child had taken his dinner, followed shortly afterwards by some milk and cake.

Death took place during a severe fit of coughing, and the necropsy showed that the trachea and bronchi were entirely filled by a grey substance, which by microscopical examination was proved to consist of particles of food, a good deal of the same being still present in the stomach. The uvula was swollen. The medical experts, therefore, declare that the child died from suffocation. They are of opinion that the boy vomited after the injection; and being in a fainting state from the pain of the injection, he was not able to get rid of the vomited matter, but drew it into his larynx in the act of inspiration. They did not find any embolism or air in the pulmonary artery, as was suggested, nor was there any confirmation of the opinion that death had occurred from syncope, and they advised the court not to hold anyone responsible for the child's death. According to the statement of the Control Office the serum was of normal quality and the injection was in their opinion justified by the present state of medical knowledge. The correspondent of the *Lancet* comments upon the report as follows. "The matter is thus at last entirely cleared up, and the unfortunate father will probably now regret that he unnecessarily alarmed the public and aroused a prejudice against a mode of treatment which has proved a blessing to a great many sufferers."—(*Lancet.*)

Astasia-Abasia.—A case of this disease is recorded by Dr. A. A. Eshner, as observed in a woman, aged 46, in whose family there was a decided neurotic taint. From 1871 to 1892 she smoked tobacco constantly and had suffered from alcoholism. In 1878 the "speech had been partially paralyzed," the disturbance having set in abruptly and being unattended with any concomitant disease. For ten minutes the woman was totally unable to speak, and only with difficulty for two or three hours more. In 1893 the patient observed that contact of the hands with cold water and exposure to draughts of air would cause her to fall. Previously to this there had been numbness in the toes and difficulty in walking. When she came under observation she complained irregularly of icy coldness of the feet, extending half way up the legs, and at times of a sense of burning in the same parts. The bowels were obstinately constipated. She could not distinguish between the desire to defecate and that to urinate. The digestion was poor, but the appetite was fairly good. The tongue was slightly coated and dry. Sleep was good and refreshing. Headache was only an occasional symptom; when present it was supra orbital and vertical. Occasionally there was vertigo. On inclining the body forward and flexing the trunk after meals vomiting resulted. The patient was annoyed by a sense of the presence of hair in the throat. She had never had a convulsion or loss of consciousness. The patient appeared quite unable to walk unsupported. When asked to make the attempt she threw her arms about rather incoordinately and swayed upon her feet. She was unable to stand at all with her feet together. She maintained that the right leg felt heavy. She could walk up and down stairs with the aid of the bannister. She volunteered the information that she did not fall when her feet were warm, and that she did not topple over in her own room. The knee-jerks were greatly exaggerated and ankle-clonus was represented by a few contractions of the foot upon flexion. So far as could be determined there was no other derangement of motility, and the muscles used in walking and standing possessed the power of performing other acts. Sensibility was generally preserved. The right pupil was a little smaller than the left; both were regular and reacted to light. The patient was rather pallid and of poor nutrition. She pointed out a small spot as large as a pin's head upon the left ear, which for two or three months had from time to time been the seat of intense burning. The patient was extremely detailed in her account of herself, and in this she was supported by her husband. Astasia-abasia may be accepted as a convenient designation for a clinical condition characterized by inability to stand or to walk, but not dependent upon actual paralysis. As a rule sensibility, muscular power, and coordination are preserved, though the disorder may be associated with hysteria or organic disease of the spinal cord. Dr. Eshner regards this case as clearly a hysterical one, all of the symptoms and attendant circumstances, including the family history, supporting such an opinion, but he thinks it must none the less be viewed with a good deal of seriousnesss and the prognosis be guarded. This case and allied ones, he says, cannot be viewed as manifestations of merely functional disturbance. It is far more probable that there have taken place nutritional changes which become more and more pronounced with the progress of the case and which in time may lead to structural changes.—(*Jour. Amer. Med. Ass'n.*)

Bronchiole Obstruction by Flour.—Dr. Gerhardt relates a curious case of obstruction of the bronchioles occurring in a man, aged 18, who worked much in flour. Three days before admission he was seized with pain in the side, cough and dyspnœa. On the next day the sputum was of a milk white color and had a floury appearance. On rubbing it up with a weak solution of iodine in potassic iodide blue spots were seen, which disappeared in a few hours if the vessel was left uncovered, but otherwise persisted for a long time. The microscope showed masses partly indefinite in shape, but partly cylindrical, consisting of blue-colored starch granules. The iodine reaction could not be obtained in the mouth or fauces, nor yet in water used for washing out the mouth. On admission the patient had a very impaired percussion note from the angle of the right scapula downwards and to a less extent over the corresponding apex. The vibrations were increased, and moist *rales* were present. There was no fever. The starch was present in the sputum for two weeks and a-half after the discontinuance of his work, and the patient left the hospital about this time much improved. The action of the starch must be attributed to its stickiness. Gerhardt observes that this case is of importance in view of the great frequency of asthma in bakers and millers. Since this case he has found starch present in the expectoration of three bakers.—(*Centralbl. f. inn. Med.*)

Pancreatic Calculus.—Dr. Giudiceandra believes that the efficient cause of pancreatic calculus is chemical alteration of pancreatic secretion, due, in most cases, to the action of microbes. Mere retention of secretion, although a predisposing condition, is not an efficient cause, for $CaCo_3$ predominates in pancreatic calculi, whereas it is not present in the normal secretion. As to frequency, calculus appears not uncommonly in connection with diabetes (22 times in 225 cases). It is more common in men than women (19 men, 7 women), and chiefly attacks people of late middle life. Amongst the subjective symptoms occur pain, chiefly in the left hypochondrium, sense of weight in the abdomen, nausea, etc. Objectively, there are glycosuria, fatty fæces, fatty diarrhœa (steatorrhœa), jaundice, pyrexia, wasting, and salivation (probably due to reflex irritation of the salivary glands). The diagnosis is seldom certain, but if with the above symptoms one meets with calculi in the fæces, which can be recognized as pancreatic in origin (and the author points out the special points of differentiation) then one may with comparative certainty affirm the existence of stone in the pancreas.—(*Il. Policlin.*)

Enlarged Glands in Arthritis Deformans.—Drs. Ramond and Chauffard record seven cases of glandular affection in arthritis deformans. There is, according to Marie, a distinct variety or subdivision of chronic arthritis deformans called chronic infective arthritis deformans, of which the authors consider their cases to be examples. Clinically this class is characterised by a paroxysmal course with remissions, trophic changes in the skin, especially of the hands, increased sweating, muscular atrophy, and sometimes fever. The glands situated above the affected joints are enlarged, painful, and tender; they preserve their form and do not show any periadenitis. The condition of the glands varies with, and is secondary to, that of the joints. The glands are more swollen and painful after exertion. The glands of the groin, the axilla, and the epitrochlear glands are those most often affected. In two out of the seven cases the blood was examined, and the proportion of leucocytes found to be normal. The authors examined the enlarged epitrochlear glands microscopically, and found fibroses but no infective nodules and no well-marked degeneration. In scrapings from the glands and in films prepared from the fluid out of an affected joint they found a short, thin, diplo-bacillus, staining readily and not decolorized by Gram's method; attempts to cultivate it failed. The bacillus found in arthritis by Max Schueller differed from the one found by the authors, and closely resembled the bacillus prodigiosus. The authors considered this glandular enlargement of value in the diagnosis of the infective form of chronic arthritis deformans.—(*Revue de Méd.*)

Sore Throat Preceding Acute Rheumatism.—Dr. Gœdel has investigated the question of the frequeney of sore throat preceding rheumatic fever, and gives details of cases. The number of cases in which this angina precedes rheumatism has been put down variously from 5 to 80 per cent., but the author thinks that the percentage should more nearly approach the first figure. He thinks that this sore throat is of the lacunar variety, and it is very painful. He then refers to the explanation of the connection of the two complaints. Researches into the cause of this sore throat have shown in the majority of cases the presence of the streptococcus or staphylococcus, but a specific micro-organism has not been found. On the other hand, the actual cause of rheumatism also remains unknown. Perhaps the local lesion in the throat is the way by which the specific micro-organism enters. The author, however, thinks that the angina preceding rheumatism is not necessarily the same affection as the rheumatism. He believes in a second possibility that the joint affection may be of a pseudo-rheumatic nature following upon an ordinary angina, and he bears out Roos's opinion that these cases differ from typical multiple rheumatic joint affection by their resistance to the salicylate treatment, by a tendency to the development of rashes, and by their prolonged course. In the majority of cases, however, these distinctions are not present. There are other entrances for the rheumatic poison besides the throat. Attention should always be given to the throat in those subject to rheumatism. By treating such sore throats with salicylates, the development of acute articular rheumatism may be avoided.—(*Deut. med. Woch.*)

Theories of Fever.—In the discussion on fever in the 14th Congress for Internal Medicine, Unverricht mentioned that there were two theories of fever: (1) that of Liebermeister, who would look upon the raised temperature as producing the other symptoms of fever, and (2) the view that fever is a complex of symptoms in which temperature plays an important part, but does not cause the other symptoms. Unverricht believes that the symptoms of fever do not depend on the temperature, but on the nature of the cause of the fever, and especially upon the toxic products circulating in the blood in infective processes. There is in all probability no single poison common to all the infective processes, such as the escape of fibrin ferment in the blood. Other symptoms of fever may be present, without rise of temperature. V. Jaksch pointed out that besides the rise of temperature metabolic changes were an important manifestation of fever. Large doses of alcohol were to be avoided. Antipyretic drugs were valuable not because they were antipyretics, but because they were nerve tonics, and they could not be done without. Schill had never used antipyretics. Unverricht has always taught that the damage hitherto attributed to raised temperature has not been proved, and that the view *that the raised temperature is useful* is in all probability correct. Experiments on animals show that febrile temperature exercises an inhibitory action on the development of bacteria. Perhaps certain toxins form at higher temperatures new and harmless combinations. Clinically the pneumonia of the aged is less unfavorable if the temperature is high.—(*Centralbl. f. inn. Med.*)

TRANSLATIONS FROM THE FRENCH.

By W. L. ADAMS, M. D., Palo Alto, Cal.

Resumé of the address delivered by Professor Pitres at the meeting of the Congress of Medicine, held at Nancy, August 6, 1896.)

Cerebral Localization.—The idea that the brain is formed by a federation of distinct organs, each possessing the attributes necessary to its functional activity, is not new. It was gradually developed through the labors of Gale, Bouilland, Broco. Fritsch and Hitzig, in 1870, proved that certain regions of the cortex were responsive to stimulation, and since the experimentors and clinicians have succeeded in demonstrating, at the price of infinite labor, the existence of a certain number of motor and sensory centers in the cortex. The words *cortical centers* express the theoretical idea that was entertained concerning organs of special function that were presumably contained in the gray matter of the cerebral hemispheres. It was believed that there existed, scattered in the gray substance of the circumvolutions, groups of cells functionally and anatomically autonomous. But it was admitted that there existed between them tracts of communication that assured their functional synergy. Experimentors determined carefully the effects of electrical irritation upon different portions of the brain of vertebrates. Physicians fixed the limits of the cortical motor zone in the human brain, described the pathological reactions of lesions of internal capsule and centrum ovale, discovered the precise seat of lesions giving rise to motor mono- and hemi-plegias, to sensory troubles, to word-blindness and word-deafness.

The enthusiasm caused by this movement led some investigators into too rash speculations. The theory according to which the frontal lobes served for the elaboration of the intelligence, the Rolandic region for motor impulses and the spheno-occipital lobe for sensibility, was conceived by some and even appeared in certain text-books. But the true *savants* never accepted nor encouraged such theorizing, and never in their conclusions went beyond what was shown by actual facts. Charcot even went so far in his prudence in the discussion of these questions that he never followed out the theoretical deductions that would have apparently been legitimate for him to draw from those anatomical and clinical cases which he knew so well. And many times he declared in his writings that he attached no doctrinal sense to the terms "motor center" and "sensory center." By these terms he designated certain portions of the gray matter of the cortex, destructive lesions of which resulted invariably in the suppression of certain specialized functions, and he systematically refused to go beyond that positive fact.

The famous discoveries of Ramon y Cajal, Golgi, Waldeyer and others, in modifying the ideas we possessed upon the anatomy and physiology of nerve-cells, have furnished arguments to the adversaries of the doctrine of cerebral localization. It was once held that these cells communicated with each other by means of a continuous network of protoplasmic fibers. But this, it seems, is not so. It now appears that the nerve-cell forms, with its nucleus, its perinuclear mass, its protoplasmic ramifications and axis cyclinder, an anatomical unity always isolated, called the *neurone.* Relations between neurones are established, not by direct anastamosis, as was formerly believed, but by means of contacts existing between the finely ramified endings of adjacent neurone-processes. The so-called nerve-cell is but an organ of nutrition for the neurone; and the transformations of forces do not take place in it, as was once believed, but in the points of contact of its terminations with those of contiguous neurones. There is no essential difference in structure between the so-called motor and sensitive regions. The convolutions, whether frontal, parietal or occipital, all contain in about equal number: 1st, pyramidal cells with cylinder axes of great length directed to the base of the brain *via* the capsular region; and 2d, smaller cells of various forms whose extremities are contained in the cortical gray matter. Experimental physiology and clinical observation have enlightened us as to the functions of the pyramidal cells—those whose cylinder axes grouped together form the internal capsule. They serve for but two of the great cerebral functions, the motor and the sensitive functions, and are entirely independent of the superior psychique faculties—thought, intelligence, the association of ideas, the revival and recollection of images, the judgment, the will. The psychic functions dwell in the innumerable neurones of association, of various form and volume, whose terminal branches traverse in every sense the gray matter of the convolutions. These neurones, having no capsular projections and not being grouped in clusters anatomically separated, are not accessible to our means of experimentation. Nor yet are they subject to our methods of clinical or anatomical observation, because of the far-reaching reactions and indeterminable extension of lesions of the convolutions, even when the lesions are slight. But everything leads us to believe that the functions attributed to them are not localizable, and it is useless to seek the seat of intelligence, memory, judgment or will. These words, that in scholastic language represented entities, are but abstractions that too often give a false idea of the complex phenomena that they designate. In physiology the intelligence is something analogous to what in political economy is called the State,—a reality infinitely complex, an organized power that acts by means of a myriad of agents spread over the whole surface of its territory and subordinated one to the other according to their importance and rank. Thus the intellect is divided into an infinite number of parcels. Each cerebral cell holds a part of it, none is the exclusive organ of it. Nothing so far permits us to suppose that there exists a center of judgment, a center of intelligence, a center of conscience, etc.

Nevertheless, the inextricable mesh of those cortical neurones in which are elaborated the higher psychic functions is necessarily united to the pyramidal cells in which are formed the motor and sensory images, and this is connected with the periphery. The cerebral functions seem to operate like the elementary reflex acts. They have for origin sensory excitations, and for result motor excitations. In the simple reflexes the excitation passes without intermediary from the terminations of the sensory to those of the motor neurone, and reaction immediately follows irritation. In the brain this reflex act is more complicated because between the sensory and the motor neurones we find the network of psychic neurones; but still we have always the initial stimulus, of sensory nature, and the final result of motor nature. Now we know that the sensitive image-cells are placed in the spheno-occipital region, while the motor-image cells are located in the fronto-parietal region of the cerebral hemispheres. Therefore, lesions affecting either of these regions necessarily affect certain kinds of psychic action since they involve the points of contact by which communication is established between the organs of those psychic functions and the organs of sensation or motion. For example: if the part of the occipital lobe in which are normally stored visual images becomes the seat of softening, the patient can no longer evoke the optic images that were accumulated in the destroyed region. We say that he has lost his visual memory, but he has lost more than that; the collection of optical images which he possessed is gone, and with it the organ by which their revivescence was effected under the influence of the evocation of memory. Another example: in aphemic patients we see inability to pronounce a word that is perfectly remembered, yet there is no muscular paralysis. We say they have lost their motor memory. There is a circumscribed lesion of one of the anterior convolutions, it suppresses the cerebral organ of certain motor representations, and as in the former case the memory was mutilated by a cortical lesion, so here the will (another psychic function) is disabled and incapacitated from expressing itself by effective excitation.

So, in spite of the identity of structure of the cerebral convolutions, as shown by the histologists, we must recognize their diversity of function as demonstrated by the mass of precise and indubitable facts accumulated by the clinicians of every land. And these facts, upon which is established the doctrine of cerebral localizations, do not in any way conflict with the discoveries of modern histology. In the present state of our knowledge we must consider that the gray matter of our convolutions is the essential organ of the psychic elaborations. These take place in the network formed by the terminal ramifications of the polymorphous cells of the cortex. This network is exceedingly complex, and up to the present time it has not been possible to establish any exact localizations therein. It is joined to the periphery by the system of axis-cylinder cells whose function it is to receive, enregister and preserve the sensory images, which form the primary material of intellectual operations, and the motor images which are the final product of such operations. Owing to the different functions of these cells, according as they are situated in the spheno occipital lobes, or in the fronto-parietal regions, we find that lesions of different portions of the cortex are not physiologically equivalent. Those of the former tract derange the free play of the images of sensation, those of the latter hinder the formation of motor-images and the transmission of voluntary excitation. More than this we do not know.—*Le Progrés Médical,* 15 Aug., 1896.

GENERAL DEMOGRAPHY AND CLIMATOLOGY.

Under the charge of P. C. REMONDINO, M. D.,
Member of the American Public Health Association, of the American Medical Association, of the State Board of Health of California, and of the Board of Health of the City of San Diego.

Tests of Endurance.—Some time ago we chronicled the standing and hanging tests of a Frenchman, to which he promised to add a test of being buried for a certain length of time, and we once read of the defeat of the modern Samson, Sandow, who ridiculed the idea that he would be unable to stand the continuous drop, drop, drop, of a pint of water upon his naked hand. The first two hundred drops were laughed at, but by the time the count passed this number he began to look serious and soon thereafter expressions of pain showed on his face; the hand began to swell and the skin, becoming tense, ruptured. The pain increased in intensity, and before an ounce had dropped he acknowledged himself vanquished.

Quite a different form of endurance trials lately took place in Italy, reminding one of the smoking festals or contests to a finish that are now and then fought out in Germany. Two enthusiastic "record breakers" respectively tackled a piano and evolved Wagnerian and other music for hours without a rest. The conqueror in that new contest pounded and pedaled away without interruption for fifty hours. Another contest of a somewhat similar nature took place soon after in Turin, when fourteen desperate mandolin players ranged up on a platform and began picking the strings with a quill against endurance and time and for fame and a prize. The constestants were watered and fed at will by assistants, but according to the stipulations they were to play right on through the watering and feeding. The conqueror in this new trial picked away industriously for twenty-three hours and fifty-five minutes without a break. Of the fourteen contestants seven were women, four of these were soon compelled to desist, the other three holding on bravely, however, through fatigue and pain for some eighteen hours.

Whatever female suffragists and women's rights apostles may say to the contrary, woman stands but poor chances of winning in such a contest; as Artemus Ward would have said, she is not built for it. There are serious anatomical reasons of a urethratical nature why she should not engage in contests against unmeasured time unless she wishes to run the risk of developing some very annoying infirmities that will for long make her life a burden. They may be expert sword-women, great boxers, and even great female wrestlers, just as there are great female orators and statesmen, but even a Semiramis, a Cleopatra, an Empress Julia or a Russian Catherine, or an Elizabeth, would have to succumb against a time test against men when ranged on a platform before a closely observing committee.

Many of the physical ills of modern civilized woman are the simple result of having persistently neglected to answer to the demands of nature. The evils of constipation are by no means restricted to the simple dormancy of the rectum, which in these continued and daily occurring contests between the demands of nature and the persistent refusal of modern woman to attend to them, at last become utterly apathetic and senseless. The absorption of toxic matter and the interference to the sewer channel throws undue work on the kidneys, predisposing these organs to future diseased conditions, just as it may be the initial point for the beginning of a neuralgia or of some kindred disease that will painfully persist throughout life. Many diseases of the sexual organs, infirmities of the lower extremities, rectal affections and various other ailments have their origin in these cases of obstinately induced constipation. The same neglect of the bladder is also attended with more or less disastrous consequences. While these may not be so serious as from the former cause, they are often the cause of great subsequent physical suffering and annoyances.

The Long Sleep of the Indian Fakeer.—The astonishing feats performed by the Hindoo fakeers in the way of permitting themselves to be buried for days or weeks in the hypnotic state, are the results of the most studied and careful dieting and long training, and are not by any means the spontaneous outcome of any sudden determination or accident. Cannabis Indica is largely a factor in preparing the fakeer to undergo the ordeal. No well fed Teuton ever could be expected to attempt like trials. The fakeer who proposes to be buried for some weeks, requires a long probationary period of severe fasting, prayer, and abstinence. Like to the saints of old, he then sees visions and lives an altogether "inner life"—as our theosophic friends would say. Daily feasting on ham pies and beer does not tend to the production of an "inner life," and the American fakeers, who masquerade as disembodied spirits in communication with the

Mahatmas of another sphere, whilst they sustain life on American chops and steaks, interspersed with American biscuits and pies, can hardly be said to be the real article.

Lithemia as a Factor in Female Neurasthenia.—Woman is more prone to the neurasthenic conditions than man. Mary A. Spink (*Woman's Med. Journal*, No. 2 of 1896) divides neurasthenia into three groups as suggested from its three great factors—the lithemic, the simple, and the reflex. In the first of these, the lithemic, the condition is characterized by a urine of high specific gravity, high color, and of an acid reaction. Such urine contains uric acid crystals. A woman who inherits a tendency to nervous diseases, will do well to follow the conservative method of existence contained in the old fashioned home life where she will the more possibly remain free from all the vexatious annoyances that encumber the path of the advanced woman, who yearns for the worries and perplexities, as well as for all the unsatisfactory trials and tribulations of the politician and the statesman. Failing to attain the level of a statesman or the position of vantage of the unscrupulous politician, woman may escape becoming a neurasthenic wreck through the lithemic complications incident to nervous worry inseparable from a politician's existence, but such a woman, through disappointed ambition, will then fall a victim to the simple form of the disorder, and become eminently and hopelessly neurasthenic as her various disappointments and unproductive pursuits have lost to her any interest in life, and she is apparently living without any defined object.

Women who aspire to a title and fail in gaining a count, marquis, or duke, are also liable to become neurasthenic, although it cannot be said that all of our American women who have carried off a duke or prince, have altogether escaped all neurasthenic afflictions or complications, as the routine life and tainted moral conduct, as well as expensive habits of the average European prince, who from penurious reasons marries an American woman of wealth, would soon turn the virtuous Cornelia of Roman fame into a hysterical Medea.

Fifty years ago, and even later on, female as well as male neurasthenia was a very uncommon disease; it was then, we might say, even an unheard of disease, something that was still in the evolutionary future of woman and of the Republic. That so much female neurasthenia now prevails, is something that should occupy the attention of our women congresses. If the tyrant man is the main factor, then he should be promptly squelched: if, on the other hand, there is something wrong about woman herself, then advancing woman should point out the causes and attempt its remedy. Somehow, the average women's congress has failed to display that patriotism that might have been made profitably active in showing to the average millionaire's daughters their better duty to their country, just as it has failed to properly grasp the fact that woman is becoming more neurasthenic every day, and that the better physical welfare of woman is a matter of the greatest importance to the woman, to the home, and to the nation. The average woman's congress appeals more to the emotional man and woman, deals more in sentiment, in glittering generalities, and in Utopian speculations than in every-day facts and problems. The widespread ravages made by neurasthenia among the sex, and through it upon the national health, stamina and morals, are matters that should seriously occupy the attention of these congresses.

The Mehari or Desert Dromedary.—The many cases of death annually occurring in the desert regions of Southern California, from thirst and exhaustion, from lost trails or wandering in search of water, would suggest, that prospectors and others traveling through those desolate, arid, and often trackless wastes, should employ other animals than the horse, mule, or the proverbial patient and much enduring burro. The only animal really adapted for really safe travel in that region is the dromedary. In Africa the French troops have a corps specially instituted for quickly traversing the desert, or for any purpose requiring rapid moves through waterless and hot regions. This corps is composed of Arab riflemen, officered by French officers, and the whole troop is mounted on mèharis, these being selected dromedaries chosen for their extra speed and endurance. The mèhari can easily cover from thirty-five to forty miles in a day, its trot being as rapid in carrying the animal along as the fast gallop of an ordinary cavalry horse; this daily task it can accomplish for as many as twelve or fifteen successive days, whilst undergoing total abstinence for five or six consecutive days. One of these animals can often go for a week without food, and in the winter season it will go from fifty to sixty days without water. The carrying capacity of these animals is such as would enable the prospector to carry a larger supply of water which need only be utilized by himself. In case of finding the supply by accident or use unexpectedly giving out, he might then easily and quickly reach some watering point, and in case of the occurrence of some such overheated spell as lately visited the desert, it would be possible for him to reach cooler localities in time to prevent the exhaustion from reaching dangerous limits. The present season gave the first recorded instances of death on the desert from pure heat exhaustion, the atmospheric conditions and usual comparative relations regularly existing between heat and moisture having been for the once deranged and made to approximate the heated atmospheric conditions of the East.

However patient, enduring, and abstemious the desert burro may be, his slow gait, which requires so much time to cover over a short distance, and utterly inadequate where a long distance needs to be gone over quickly, becomes a treacherous helpmate when waterless, and many miles intervene between the fast sinking prospector and a possible waterhole. Some years ago, the experiment was tried of adapting camels to the wants of Arizona, and we have never learned just why the attempt proved a failure. African ostriches have done well in various portions of San Diego county, even to the raising of their young, occurrences which would suggest that it would be equally as easy to rear the camel or the dromedary.

The Stamford, Conn., Epidemic of Typhoid Fever.—The last annual report of the State Board of Health of Connecticut is replete with interesting and instructive sanitary articles. From the study of one of these, we are again reminded, that whatever we might once have been in a national sense concerning our unwillingness to pay tribute, and unlimited willingness to contribute to our defense, that the same sentiment has no status whatever when it comes to matters of hygiene at the present. When it comes to protecting health we always wait until we first have paid a deadly tribute before engaging in our defense or protection. The late epidemic of typhoid fever at Stamford, which produced 386 cases of unseasonal disease, and 22 cases of death, traced to the washing of milk cans from polluted well-water, reminds us of the epidemic of like fever that affected Oakland from analogue sources in late years. The Stamford epidemic, like to that of Oakland, was easily traced to the milk supply, and to the milk of a particular dealer, and from thence to the well from whose water the milk cans were rinsed after having been scalded and washed. Although no positive analytical evidence existed in this water of the presence of typhoid fever germs, abundant evidence was present to show that it was grossly contaminated, samples of the water giving large quantities of chlorine and nitrogenized matter. Prof. Prudden, who also examined that water, found 69,660 living bacteria to the cubic centimeter, a "number of living germs reasonable in sewer water or a cesspool, but indicative in a well of a gross contamination." The water in the well stood only one foot and nine inches below the surface, and a privy closet, with its natural surface drainage being towards the well, stood only twenty-five feet back of the well. The vault of this privy was shallow and leaking at the surface, and was liable to be used by strangers passing along the railroad track.

This and the late Oakland lesson should not be lost. Milk dealers are not all hygienists, and their occupation is but too often a temporary makeshift in which they can unconsciously or ignorantly inflict great damages upon a community. It also shows the importance of having trained and conscientious health officers and health inspectors, and that these offices should be more than a recompense for political activity or personal services exhibited during some campaign. Furthermore, the duties of health inspectors should be more defined, and we should have more reports defining the thoroughly hygienic condition of these milk farms, than subsequent reports detailing how the disease germs from this or that consumptive cow or attendant, infected the milk, or how the *pot de chambre* of this or that typhoid fever patient was cleansed in the waters of the same creek that stood service as a rinsing medium for the milk cans. Neither do we wish to see any more post-mortem reports concerning the proximity of privy vaults to the wells that supply rinsing water, nor that these waters are as badly contaminated as sewer or cesspool water. Such details should be all made ante-mortem, and to do this well, there should be conscientious and well trained inspectors who should have all the details of the milk business continually under their personal supervision—better a dollar for defense than a thousand for tribute, whether on a social, economic, or in a hygienic sense.

The "report" closes its article on this subject with the following suggestions:

"The real responsibility for such occurrences rests with the communities in which they occur. They may make it unlawful for anyone to engage in this business until he has shown some proper public officer of the community that his facilities and knowledge are sufficient to warrant him in undertaking the business, without exposing the community to loss through his ignorance, and also the communities may by a proper system of inspection, protect themselves from the consequences of neglect or indifference on the part of those who have once been licensed. This is the lesson to be drawn from this experience."

Preventive Measures Against Typhoid Fever.—The same report contains many valuable hints concerning the rules to be observed by the nurses in care of typhoid fever patients, rules calculated for the protection of the well, and which are equally applicable to cases of tuberculosis. In regard to the management of dishes it says:

"Dishes and eating utensils should be kept exclusively for the patient, and after use should be boiled for fifteen minutes in water containing sal soda, then rinsed in clean water. All food brought into the sick-room and not consumed by the patient should be burned."

Concerning the disposition of the stools—something which is equally as applicable to cases of tuberculosis and cholera, as to those of typhoid—this report adds:

"The excretions should be received in a vessel containing a small portion of milk of lime—composed of freshly slacked lime and diluted with four times its bulk of water—to which a liberal addition should be made afterwards, and the whole intimately mixed by stirring with a stick. It should stand a half hour or more before being buried. Milk of lime is the most valuable agent for the disinfection of typhoid and cholera stools we have. The practice of suspending towels and sheets about the sick room, saturated with carbolic acid and other odorous solutions, is not to be commended. It has little other effect than to cause frequently, nausea and headache in the patient and attendant."

"The body and bed linen should be changed daily. Never shake them. As soon as removed immerse them in a disinfecting solution composed of carbolic acid and water (one part to forty), or in a bichloride of mercury solution (one to one thousand). Let them soak four hours or longer, then boil them for half an hour and wash with soap. The rubber sheet should be thoroughly sponged with the carbolic solution, then dried and aired in the sun for several hours.

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Editorial.

DAIRY INSPECTION.—MORBIFIC AND INFECTIOUS MILK.

It is simply astonishing how far behind Europe we are in the matter of dairy inspection and Board of Health control of the gathering and distribution of the milk supply. The importance of it, we venture to say, is not appreciated by the majority of physicians, and therefore such an exhibition of ignorance as we have lately had in this town on the part of dairymen and butchers is not to be wondered at. The great ground of complaint of the latter class is that it is unfair to kill the diseased cows without compensation. As a matter of fact, there is no more reason for paying a man not to sell infected milk or tuberculous beef than there is for paying the hotel man, for instance, not to give the public water from an infected spring or decayed vegetables and putrid beef. However, we are inclined to believe that in this we may be guided by the law in Massachusetts, which gives the dairyman or butcher one-quarter of the value of the animal killed.

If people could be made to understand that tuberculosis, erysipelas, anthrax, septic and other fevers, specific enteritis, and other intestinal disorders, etc., etc., may be directly caused by milk taken from animals suffering from these disorders, we might have less trouble in getting proper laws on our statute books and enforcing them afterwards. It is a very curious thing in this connection that the small infant mortality in Japan may be directly traced to the fact that no cow's milk is used in that country. There is really no telling the number of children who are either brought to an untimely death, or are left with a distinctly scrofulous taint to transmit to future generations as the

direct result of infant feeding of morbific milk as sold in our great cities. But it is not only the infants that are affected by such criminal disregard of the laws of health. The terrible epidemics of typhoid fever and intestinal disorders which have carried off thousands of children of an older growth have in many instances been traced directly to an infectious milk supply.

The duty of the Health Department is plain. The dairies, herds of cattle and the milk market should be placed under strict sanitary control. The dairy stock all over California should be inspected by a competent veterinarian (as in Massachusetts) at least once in three months, and all animals found to be suffering from the diseases mentioned above, or from the foot-and-mouth disease, garget and other inflammatory conditions of the teats and udder, should either be killed or quarantined, and all animals which are being treated with medicaments for any and all causes should be put in the same category. The milk of animals five days before and after parturition should be excluded from consumption.

The pasturage and the water used by the animals should be looked after with the greatest care. The animals should be groomed daily, and before milking the teats and udder should be thoroughly washed with water previously boiled. This latter is of great importance, for the presence of excrementitious matter and fæcal bacteria in milk is next in danger to the presence of disease germs. The milkmen should be required to be perfectly cleanly and the persons engaged in handling milk should be free from disease. We are perfectly well aware that this would be extremely difficult; none of us, however, would think of employing a cook afflicted with a communicable disease, and yet in California not the slightest restriction is placed upon, nor questions asked as to the persons who handle the milk supply.

In a very elaborate report by Dr. G. M. Kober and Dr. Busey, of Washington,[1] the whole subject is treated with great thoroughness. These authors suggest that the products of each ten cows in the dairy should be mixed, not only to insure uniformity, but also to diminish the danger of transmitting disease germs in concentrated doses from any one animal.

That in transferring and bottling the milk, absolute cleanliness should be observed, and the retailer should be duly registered and be required to furnish the health officer with a list of customers. These lists should be arranged at that office on the "index card system," in order that the simultaneous occurrence of infectious diseases in a number of families supplied by the same milkman may be promptly discovered and the mischief checked.

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[1] Report to the Board of Health of the District of Columbia, March, 1896.

On the subject of "milk standards," Drs. Kober and Busey conclude that we should expect a milk containing 12.50 per cent of total solids, composed of 8.75 per cent of non-fatty solids and 3.75 per cent of fats, and that the legal standard should be modified accordingly. It seems that the official standards in force in America vary from 13 to 12 per cent. It seems to us that the standard should be at least 13 per cent as in Massachusetts.

With reference to this standard, while it might seem unjust to condemn a milk as adulterated which has more than 87.5 of water, still the adoption of a smaller standard would result in the sale of a very large quantity of adulterated milk, which, apart from diminishing its nutritive value—a matter of great importance in infant feeding—is often the immediate cause of transmission of disease germs, with the addition of infected water.

As a matter of fact there should be immediately established in this city and county, milk depots like the Walker-Gordon Laboratory of Boston. In the management of this establishment farm and herd are under the absolute control of the laboratory, and are used for laboratory purposes only; the cows, their food, their stables, their pasture and their drinking water are subjected to the frequent, paid, critical examination of the best veterinary surgeon that can be procured in Boston. The dairymen dress in white suits before milking, each having previously had a bath. The cows are milked into glass pails, and the milk, after being aerated and cooled to about 44° F. in a tank of ice and water, is delivered at the laboratory in Boston within four hours of the milking.

At the laboratory a ventilating engine keeps up a constant change of air, and a hose keeps the enamelled brick walls and stone floors wet to prevent any remaining dust from contaminaing the milk while it is being modified. The whole milk, after being "pasteurized," passes through a Stockholm separator which makes sixty-eight hundred revolutions a minute, yielding a cream of an almost constant sixteen per cent fat. It not only does this, but it removes all dirt which from unavoidable causes has gained access to the milk, thus yielding a clean, skimmed milk, practically free from fat (only 0.13 per cent remaining).

Finally, we propose to keep up the agitation in this city for proper legislation as to the milk supply and to the establishment of these milk laboratories and of cattle inspection. When Lord Cornwallis refused his consent to his son's marriage with one of the daughters of the notorious Duchess of Gordon, Lady Gordon went to the old gentleman, and gravely assured him that "There was not a drop of Gordon's blood in Louisa's body." We propose to keep up this agitation until there isn't a drop of morbific milk for sale in this body politic.

CHINATOWN.

We cannot too highly commend the action of the Board of Health in its endeavor to purge Chinatown of its filthy and unhealthy structures. They have only too long been a menace to the health of this city. Efforts hitherto made to clean out these pest-holes have been met with such opposition that until the present Board took up the matter nothing was done. Some of these places were kept as interesting spots for sightseers. It is not very creditable to our authorities that these foci of disease have not before been purged. There will be enough of interest in Chinatown to make it well worth the time spent in touring this quarter after the Health Officers have got through with their work of demolishing these death traps. We hope that the Board of Health will, as soon as possible, make a raid upon the tumble-down unhealthy rookeries situated in other sections of the city. At its last meeting the Board gave notice that unhealthy tenements in all parts of the city, which are too decayed to be put into sanitary condition, will be destroyed.

HERR A. NOIL, Berlingen, Germany, has invented a clock that will run 10,000 years without winding after it is set going. It also has hands which will point out correctly all the changes of the moon, days of the week, etc., until 11,896 A. D.

REPAVING MARKET STREET.

We sincerely hope that the late Grand Jury made no worse break than that wherein they say that Market street is sufficiently well paved. It is our honest belief from personal observation of the streets in many of the large cities of this country, that but one street of equal importance is as poorly paved as Market street, San Francisco, and that is Canal street, New Orleans. Our wheelmen are unanimous in designating Market street as so bad that the English language fails to do the subject justice. We recommend the gentlemen who composed the Grand Jury to read Dr. W. F. McNutt's paper on "Good Street Sanitation," read before the State Sanitary Convention in San Francisco, April, 1895. They will learn something to their advantage by so doing.

STREET CLEANING.

We learn that the City of Los Angeles is to return to the primitive method of sweeping its streets, employing the hand-broom in place of the sweeping-machines. We are heartily in favor of this method, as the streets are kept cleaner, there is less dust thrown into the air, more men can be employed, and withal it is cheaper. We can assure our Los Angeles friends that those of our streets swept by hand are much cleaner than when machines were used. The streets should be well sprinkled before sweepers commence their duties.

PREVENTION OF BLINDNESS.

A law for the prevention of blindness has been recently passed by the legislature of South Carolina, which is exactly similar to the law on this subject passed by most of the States during the last five years. A precisely similar law was drawn up and presented to the legislature of California two years ago. Through some misfortune it met with an untimely death in committee. Some of the alleged funny men on the committee dubbed it the "red eyed bill," they appeared to think that the bill was designed in some manner to aid the doctors, and that was something which could not be thought of for an instant. They could not imagine that such a thing as a bill solely in the interest of humanity and the taxpayers could have any merit. A similar bill will be presented at the next legislature. We shall endeavor to so enlighten our legisl ature on this important subject that they will see no objection to it. When it is so easy to demonstrate that from one-twelfth to one-tenth of all the blindness is due to preventable causes, we feel sure that the next time this bill is brought before the proper committee it will at least not be laughed down.

THE BATTLE OF THE CLUBS.

The reports published during the last twelve months in our columns show that in many parts of the United Kingdom the medical profession is taking vigorous action to put an end to the abuses of the cheap contract practice. Owing to conditions existing in the ranks of the profession, which have prevented union for mutual support, the fees paid for this kind of professional work have become so reduced that a reaction has at length come, and the profession is becoming alive to the importance of this question.

The honor of having initiated the movement must, we think, be assigned to Cork, where the members of the profession resolved on united action some eighteen months ago. In Portsmouth and Bristol the efforts have been crowned with success; and in several other localities, although the struggle is not over, there is every reason to think the profession will be ultimately successful.

This reaction has not come too soon. Cheap contract practice has been assuming such proportions of late years throughout the country as to threaten the very existence of a large portion of the profession. Although the number of medical men on the *Register* has increased considerably during the last twenty years, it is probable that all might obtain a fair livelihood, if only moderate fees were paid by the public for professional services; but if three-fourths of the practice in the country is to be undertaken by clubs, medical aid societies, etc., at the present rates, it becomes obvious that many practitioners must starve or abandon their profession.

It is foolish of the public to shut their eyes to the fact that the quality of the work is most likely to deteriorate with the price, and when it is considered that individual members of the public are but little able to gauge the medical treatment they are receiving, is it not ill-advised to put temptation to scamp their work before poorly paid practitioners, who after all are but mortal?

The present underpayment of medical services is to be deplored for three reasons. In the first place the medical profession must cease to attract the best men into its ranks. In the second place the whole tone of the profession must be lowered; and, lastly, it would be absurd for the public to shut its eyes to the fact that excessive depreciation in value, whether of commodities or professional services, must inevitably be followed by deterioration in quality.—*British Medical Jonrnal.*

The "cheap-John" doctor, it would seem, is not confined to San Francisco.

DEATHS.

On September 3rd, Dr. Edmund Bragdon died at his home in Martinez, where he has lived for the last nine years. The doctor was a native of Maine and was 53 years of age at the time of his death. He served as a lieutenant in the Civil War and received a medal from Congress for his services in the defence of Washington, remaining voluntarily after his term of service had expired. He served one term in the Maine legislature. He leaves a wife and two sons.

Dr. Eustace Trenor, a pioneer physician of Alameda, died at his home in that city on the 17th of September at the age of 62. He was at one time a member of the Seventh Regiment of New York. He came to Alameda in 1867 and conducted a private insane asylum with Dr. Tucker for some years. For several years he had quite an extensive private practice, but of late he has lived a retired life. He leaves a wife and daughter.

Dr. E. H. Pardee died on September 22, at his residence in Oakland. For the past four or five years he did but little professional work on account of failing health. During the last ten or twelve months he was a great sufferer, being confined most of the time to his room. He lived in Oakland for more than 30 years, and was once its Mayor and for years was a leader in politics in Alameda County. He was a firm believer in the future of Oakland, showing his faith by investing largely in real estate and building a large block on Broadway. He treated diseases of the eye and ear in San Francisco for many years, being, in fact, one of the pioneers of this branch of medicine on this coast. He was also a prominent Mason, a member of Oakland Lodge, 188, Alameda Chapter, R. A. M., and Oakland Commandery, No. 11, K. T. The funeral took place from the Masonic Temple, on the afternoon of the 24th.

PERSONALS.

DR. GEO. HERBERT, of Honolulu, is in the city.

DR. ALBERT ABRAMS has remove his office to 784 Geary street.

Dr. P. J. H. FARREL, of San Francisco, was married at Duluth, Minn., on September 2d.

DRS. H. S. GOSSAGE and GEO. IVANCOVICH have formed a partnership to practice in Petaluma.

DR. J. P. E. HEINTZ, of Monterey, is stopping with his family at the Occidental for a few weeks.

DR. M. B. KELLAR, of Escondido, intends to remove to Oakland. Dr. L. Y. Ketcham has taken his place.

DR. H. I. JONES returned to San Francisco last week from a three months visit to England and the Continent.

A SPLENDID opportunity for a young medical man; one who is also a graduate in pharmacy preferred. Address this office.

DR. H. H. BURTON, U. S. A., retired, of San Diego, has been appointed surgeon to the Soldiers' Home at Santa Monica.

DR. J. S. HUNT, of Queensland, has been visiting San Francisco. He was sent to this country to make a study of the Texas fever.

DR. M. L. MOORE, of the Los Angeles Board of Health, while on a visit East narrowly escaped drowning while in surf-bathing at Atlantic City, New Jersey.

DR. J. H. STALLARD, the well-known physician of Menlo Park, has entered Stanford University as a freshman in the study of geology. He did not take part in the rush.

FROM the Williams, Arizona, *News*, we fearn that Dr. Burr most strangely disappeared from Prescott, August 1st. He left town with a two-horse team attached to a wagon without springs. He was last seen fifteen miles from Phœnix. He came to Prescott with his wife and two children from Utah. As he had considerable valuable jewelry about his person and a good supply of money it is feared that he has been foully dealt with.

Proceedings of Societies.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

The regular meeting of the San Francisco County Medical Society was held August 11th, 1896, the President, Dr. W. Fitch Cheney, occupying the chair. The minutes of the previous meeting were read, and after a slight correction by Dr. Herrick, they were adopted. In discussing tubercular meningitis at the last meeting the minutes stated that Dr. Herrick said, "the majority of cows furnishing milk to children are tubercular" which should have been "a considerable number of cows are" instead of as above.

Dr. Elmer E. Kelly read a paper,

The Development of Epiphyses, Illustrated by Cathode Shadowgraphs,

and exhibited photographs of several cases, made by Dr. Philip Mills Jones.

The study of the bones has always been attended with difficulties which have confined investigation to post-mortem examination. The soft parts have so completely masked the deep-seated bony framework of the body as to throw an element of doubt into both pathological and anatomical conditions of the osseous system. Pathological demonstrations have had to await the death of the victim or the removal of the bone before definite and indisputable evidence could be adduced. Courts of law and juries with no technical knowledge of anatomy have been appealed to, to pass upon questions, that could not be positively proved or disproved, until after the time when damage awards and the satisfaction of having defrauded the surgeon of his fee, could bring solace or satisfaction to the victim.

The recent discoveries accompanying the use of the cathode ray are destined to revolutionize the heretofore doubtful methods of diagnosis and make positive diagnoses where they have formerly been impossible. This new aid to definite knowledge will prove of inestimable value in clearing up the pathological conditions in the joints and their immediate vicinity. What has just been said will be especially helpful in the pathology of childhood and youth, and up to the time of life when the epiphyses have become entirely ossified and united in bony union to their diaphyses.

Diseases of the joints are among the most common surgical complaints of childhood and adolescence, and the difficulties of making a positive diagnosis are greatly increased because of anatomical differences in structure of the bones at this period of life.

In the fœtal skeleton the long bones of the limbs are cartilaginous, and ossification in these bones begins in a center within the cartilaginous mass, and proceeds outward towards the periosteal membrane and towards the extremities. It is unnecessary, and the limits of this paper will not permit me, to enter into the discussion of the histological development of the bones farther than to say, that the long bones are changed from cartilage to bone by ossification, spreading from the center of ossification towards the surface and towards the extremities; at the same time beginning upon the inner surface of the periosteum and extending inward, soon joining a thin layer of bony tissue between the periosteum and the cartilaginous shaft within. The extremities of the long bones do not become ossified entirely or joined to the shaft by bony union until growth has ceased, but remain separated by a cartilaginous cushion, termed the epiphyseal cartilage.

The number of centers of ossification differ in different bones. The short bones usually contain but one center from which ossification of the entire bone proceeds. In the long bones aside from the ossific center in the shaft or diaphysis there are usually one or more for each extremity or epiphysis. We are told by Gray that osseous union of the epiphyses with their diaphyses "occurs in the reverse order to that in which ossification began and appears to be regulated by the direction of the nutrient artery of the bone." "Thus the nutrient arteries of the bones of the arm and forearm are directed towards the elbow and the epiphyses of the bones forming this joint become united to the shaft before those of the opposite extremity. In the leg, on the other hand, the nutrient arteries pass in a direction from the knee, that is, upward in the femur, downward in the tibia and fibula; and in them it is observed that the upper epiphysis of the femur and the lower epiphyses of the tibia and fibula become first united to the shaft." "Where there is but one epiphysis, the medullary artery is directed toward that end of the bone where there is no additional center, as toward the acromial end of the clavicle, toward the distal end of the metacarpal bone of the thumb and great toe, and toward the proximal end of the other metacarpal and metatarsal bones."

Besides the epiphyses for the ends of the bone, others are found in the projecting processes of the extremities, as in the trochanters of the femur and the condyles of the humerus. A knowledge of the period of life when the epiphyses become ossified and joined to the shaft has been one of the chief aids to differential diagnosis between epiphyseal disjunction, dislocation and fracture in the immediate vicinity of the articulation. This knowledge has been considered of great value in medicolegal injuries. The epiphyses develope from an osseous center, and from this center ossification proceeds in all directions to the circumference by interstitial growth. In early life the epiphyses are to a greater extent within the synovial cavity than in the adult, and are intimately associated with the development of the joints. The nutrient vessels of the epiphyses are believed to receive from the articular surface rather than from the shaft since the shaft has been destroyed by necrosis and accident without interfering with the development of the epiphysis. The fact that the epiphysis toward which the nutrient artery is directed becomes first united to the shaft, seems to indicate that some of its nutrition comes from by the way of the shaft of the bone. There can be no doubt but that the epiphyses are intimately connected with the growth of the shaft of the bones. Great cellular activity is present in the epiphyses and the longitudinal development of the bones is believed to depend upon them. Cessation of growth occurs in the shaft when the epiphysis is diseased badly or destroyed. Bryant mentions a case of entire separation of the upper epiphysis of the tibia which was attended with arrest of development in the tibia while the fibula grew normally and was therefore boned out.

As long as the epiphysis remains separated from its diaphysis by an epiphysial cartilage traumatic separations may occur. These injuries are usually the result of great violence. Poupart is said to have stated that this accident was very common and occurred from very slight causes, such as turning in bed during an epidemic of scurvy in the year 1699. Separation also results in consequence of inflammatory or suppurative processes, such as osteomyelitis and periostitis, and occasionally from primary inflammation at the cartilaginous symphysis which is said to occur in some cases of syphilis. Multiple epiphyseal separations affecting several bones have been observed in pyæmia. The most common as well as the most grave injury of this character is the disjunction of the lower epiphysis of the femur. About fifty cases of the kind are on record. A curious fact regarding this accident is, that 24 of the recorded cases resulted from entanglement of the limb in the wheel of a moving vehicle.

More or less difficulty has always attended the diagnosis of dislocations of the epiphyses. As an instance Robson reports a case in the *London Lancet* which he believed was a separation of the upper epiphysis of the left femur at the age of eighteen years, and remarks that his opinion is unshaken by the fact that Holme's system of surgery states that such cases do not occur after puberty. Dr. Packard, of Philadelphia, speaking of disjuncture of the lower epiphysis of the femur, says: "The diagnosis can be positively made, only when amputation of the limb or death of the patient affords an opportunity for the dissection of the parts."

The treatment of dislocations of the epiphyses is the same as that of articular dislocations where reduction is possible. Where reduction is not possible resection or amputation may have to be resorted to. It is important to remember that improperly or neglected disjunction of an epiphysis is particularly to be followed by inflammation, abscess, and considerable deformity. Through the kindness of Dr. Philip Mills Jones of this city, I am able to show you gentlemen some cathode shadowgraphs which illustrate the great value as a means of diagnosis of the cathode ray. Moreover the means of studying the bones in the live subject is of such value that all of the problematical questions concerning the time at which ossification begins and is completed, can be settled beyond question. Also all doubts concerning the pathological conditions can be easily removed by means of the X-ray photograph. The photographs which I show you to-night are illustrative of the growth of the epiphyses of the hand and radius and ulna from a child of five years to an adult.

Dr. Philip Mills Jones: At first I had intended to make a shadowgraph of the epiphyses of hands and arms for each year of life, but I found it hard to get children to sit for them, and as other business and experiments crowded me, I had to content myself with these few exhibited.

The first one is from a child 2½ years old, the next is 7 years, quite a gap between; the next is 9 years, which shows clearly the increase of bone, as do also those of 13, 14 and 15 years,—this latter especially. The largest bony hand I ever saw was that of Corbett, but this of the 15 years old boy is fully as large. One photograph here shows a needle in the heel of a man's foot, and is only shown to illustrate its value in diagnosis. This needle had been hunted for by a surgeon for two hours, and after location by the skiagraph, was removed in ten minutes. The apparatus is being improved constantly and the results also. To-day I used the fluorescent screen on a man who thought he swallowed his false teeth. Though I had but little time I was surprised at the results. The spine was clearly outlined as was also the liver and more dense organs. I look forward to great results from it.

Dr. Stearns asked Dr. Jones if the bones united as taught in physiology.

Dr. Jones: There are not enough photographs to demonstrate this certainly. The last one I have is from a boy of 15. None between that and 21 years.

Dr. Barbat: There is one error or omission in Dr. Kelly's paper, that is as regards the fibula, in which, contrary to the law that seems to prevail with regards to the junction of the epiphyses and diaphyses and the nutrient artery, the lower epiphysis which ossifies first joins the shaft first. As to value of the X-ray and fluorescent screen, it won't be long before it will become a necessity in the examination of fractures, etc., the public will demand it. I see by a paper that in Paris it was demonstrated in the case of malpractice in bone-setting that the bone had been improperly set, and the patient won the suit.

Dr. Davis: Would ask Dr. Jones if he has succeeded in getting a skiagraph of the pelvic organs, femur head, or bones of skull. The head of the femur would be of great interest in that fractures there are of such great importance.

Dr. P. Mills Jones: I have not taken any of the pelvis, not having had a chance, but I took one of a tumor of the femur. This showed the articulation of femur to pelvis, and demonstrates the growth to be cancellous in character and not tubercular as thought. I have made exposures of the head, as the socket and the jaws, with fairly good results, but have not experimented on the rest of the head.

Dr. Chas. G. Kuhlman: I wish to call your attention to the fact that the medical man is not the sole judge in court and inasmuch as the courts in Massachusetts, New York and Illinois have refused to admit the shadowgraph in evidence it may not hold as important a position in forensic medicine as some of our over sanguine friends may imagine. These are "fadic times" and it behooves us to be very conservative, as medical men are more apt than others to fly off at tangents, only to be brought up with a round turn, as some of the foremost men in the profession, I am sorry to say, have been from time to time. I am very sorry indeed that the valuable time of this Society should be taken up by matter found in elementary text books which all of us have learned during our student days at college, matters which have been regarded as anatomic and physiologic constants for many centuries. As to the value of shadowgraphs compared with illustrations in text books by such men as Virchow, Heule, Kölliker Toynbee and others, the results of years of careful, minute dissections, why they are absolutely worthless.

Dr. Sherman: There is one point that is in skiagraphy's favor, as to its use in diagnosis of fracture of the joints, there it removes all question of diagnosis and makes it a fact. There is no possibility of making a mistake in diagnosis in a case visible to the eye. It may become a source of injury, however; the students will be shown fractures and dislocations as they are *seen* and not as they are felt and diagnosed as now, as was lately shown in a late number of the Medical Journal. As they will *see* the diagnosis the fingers and senses now used will become dulled, and diagnosis will be a lost art. Skiagraphy will supercede hands as the gauze bandage has muslin. Everything of this sort has its dangerous as well as its good points, and as we cannot all have the apparatus, so we must be able to see the skiagraph with our fingers, have a skiagraph on our finger tips as it were.

Dr. Geo. Franklin Shiels: As to the term diagnosis I differ with Dr. Sherman. The main point is to make ourselves thoroughly acquainted with the disease or condition we are confronted with and the use of anything which will aid us in so doing will be of great benefit.

Dr. Kuhlman: In response to Dr. Sherman's assertions that the time is not far distant when shadowgraphy will be our only means of scientific diagnosis, I wish to say that when we consider that the tissues represented by tuberculosis, syphilis, leprosy, actinomycosis, sarcoma, etc., all belong to the pathological class "granulation tissue," and cannot be differentiated microscopically, and are capable of causing tumefaction of bones, it sounds extremely ridiculous for anyone to assert that shadowgraphs, which simply outline such tumefactions, will soon become our only scientific means of diagnosis and indications for surgical interference—because surgical interference depends upon a pathognomonic differential diagnosis. Shadowgraphy will not differentiate between an aneurism of the popliteal artery and various bony growths in that region. Pathognomonic symptoms and scientifically developed perceptive and conceptive organs are the only means whereby a physician can make a scientific differential diagnosis. Even photography, which is far superior to shadowgraphy in so far as outlines are concerned, is of little or no assistance in the differential diagnosis of skin diseases. Objective and subjective symptoms, fine well-trained senses, and a few simple instruments and chemical tests constitute the scientific physician's armamentarium in making a positive differential diagnosis, hence shadowgraphy, as an aid to diagnosis, can be of little or no value. Van Bergman and other enlightened physicians prefer to leave a bullet in the body, as it is perfectly harmless, acts as a plug to bone, and is less dangerous than probing and cutting.

Dr. Kelly, in closing, said: I have not discussed this paper much. As Dr. Kuhlman says, these are anatomical facts, but the point of studying them by means of cathode shadowgraphs is new. We cannot get dead subjects unless in large cities, but by this new method we can find just how soon they unite, and all about it, and there is room for anatomical study for the profession of unestimatable value.

There being no further business, the Society adjourned.

A. P. Woodward,
Recording Secretary.

The *Scientific American* for September 12th, published an engraving of a new form of bicycle intended, by means of a back-rest, to give additional power to the rider with less fatigue. It is the invention of M. Ch. Challand, of Geneva, Switzerland.

Licentiates of the California State Board of Examiners.

At a meeting of the Board of Examiners of the Medical Society of the State of California, held Aug. 4, 1896, the following were granted certificates to practice medicine and surgery in this State:

Bonino, Fulvio, San Francisco; Univ. Geneva, Switz., Oct. 14, 1890; Univ. Bologna, Italy, Nov. 14, 1890.

Carter, Frederick J., San Francisco; Lic. Soc. Apoth., Aug. 10, 1893; Royal Coll. Phys., London, Oct. 25, 1894; Royal Coll. Surg., England, Nov. 8, 1894.

Faull, Carleton W., San Francisco; Med. Dept. Univ. Oregon, April 1, 1896.

Gaff, John V., Los Angeles; Ensworth Med. Coll., Mo., Feb. 28, 1889.

Greenleaf, Harry S., Alameda; Med. Dept. Univ. Penn., June 13, 1896.

Keenan, Frank M., San Francisco; Detroit Med. Coll., Mich., April 30, 1896.

Lowry, Robt., Jr., San Francisco; Louisville Med. Coll., Ky., Feb. 25, 1887.

Strunsky, Max., San Francisco; Bellevue Hosp. Med. Coll., N. Y., March 23, 1896.

Toms, Rodney A., Springfield; Baltimore Med. Coll., Md., April 15, 1890.

Wales, Herbert N., Los Angeles; Coll. Med. Univ. So. Cal., June 3, 1896.

Heller, Clarence L., San Francisco; Med. Dept. Univ. Cal., July 13, 1895.
Kellogg, Wilfred H., Palo Alto; " " " May 13, 1896
Latigau, A. L. J., San Francisco; " " " "
Murphy, James D., San Francisco; " " " "
O'Brien, J. H., San Francisco; " " " "
Painter, George L., Oakland; " " " "

At a meeting of the Board of Examiners of the Medical Society of the State of California held Sept. 3, 1896, the following were granted certificates to practice in this State:

Brooks, Ezra, San Francisco; Med. Dept. Univ. Iowa, March 3, 1886.

Brown, Ella Pringle, San Francisco; Med. Dept. Univ. Oregon; April 1, 1896.

Cameron, Howard McDougall, San Francisco; Med. Dept. Univ. Cal., May 13, 1896.

Davies, Edward Gomer, Claremont; Rush Med. Coll., Ill., Feb. 25, 1879.

Donaldson, Frank, San Francisco; Med. Dept. Univ. Maryland, March 14, 1883.

Fretwell, Wm. Joseph, Los Gatos; Missouri Med. Coll., Mo., March 6, 1888.

Gilham, George W., Townsend, Mont., Med. Dept. Univ. Cal., Nov. 7, 1881.

Lund, Miela C. Svanoe, Los Angeles; Woman's Hosp. Coll., Ill., Feb. 24, 1874.

McClelland, H. K., San Francisco; Med. Univ. Wooster, Ohio, March 18, 1871.

Moore, Millard F., Santa Barbara; St. Louis Med. Coll., Mo., March 7, 1879.

Oliver, J. E., Stockton; Jefferson Med. Coll., Pa., April 2, 1885.
Parr, John Conrad, Los Angeles; Med. Coll. of Ohio, Feb. 27, 1859.
Rea, Chas. T. I., San Francisco; Jefferson Med. Coll., Pa., March 15, 1859.
Rogers, J. **Lincoln**, Los Angeles; Coll. Med. Univ. So. Cal., June 3, 1896.
Scroggs, Walter R., San Francisco; Cooper Med. Coll., Cal., Dec. 5, 1895.
Stewart, John Alexander, Santa Cruz; Royal Coll. Phys. and Surg., Ed., Scotland, April 19, 1862; Univ. St. Andrews, Scotland, April 19, 1862.
Sullivan, Wm. N., San Francisco; Cooper Med. Coll, Cal., Dec. 6. 1892.
Taggart, Harry Wallace, Marion Sims Med. Coll., Mo., April 2, 1896.
Thornton, Edgar H., Portland, Or., Med. Dept. Univ. Oregon, April 2, 1892.
Woodhouse, Henry John, Pasadena; Jefferson Med. Coll., Pa., April 3, 1889.

Chas. C. Wadsworth, M. D., Secretary,
1104 Van Ness Ave., San Francisco.

Sanitary Reduction Works.

The Directors of the Sanitary Reduction Works of San Francisco held their first meeting Sept. 17th, and elected the following officers: President, L. R. Ellert; First Vice-President, C. L. Tilden; Second Vice President, Dr Joseph Pescia; Treasurer, Wells, Fargo & Co.'s Bank; Secretary, A. Sbarboro. The office will be with A. Sbarboro, whose has recently leased the northeast corner of Montgomery and Commercial streets, formerly occupied by the Sather Banking Company.

It is the intention of the corporation to go to work at once and erect, in connection with the garbage crematory, reduction works with the latest improvements. For this purpose, Ellert, who is the general manager, will leave in a few days for the East to inspect the best works now built in Philadelphia, Baltimore, Washington and other places, and as soon as selection is made the machinery will be sent here by rail and the erection of the works commenced at once. It is expected that everything will be in working order by January 1st. The first reduction works will be built somewhere near the old dumps and as accessible as possible, but as soon as the first plant is found to be in satisfactory working order then one or two other plants will be built in other parts of the city so as to reduce the distance of hauling the garbage.

This is a step in the right direction. We wish the gentlemen every success.

New York State spends in charity every year the enormous sum of $23,000,000. This includes public and private donations.

Health Reports.

REPORT OF THE STATE BOARD OF HEALTH.

By J. R. LAINE, M. D., Secretary State Board of Health.

DEATHS.—Reports from fifty cities, towns, villages and sanitary districts, aggregating a population of seven hundred and thirty-nine thousand one hundred and thirty-two, show a mortality of eight hundred and sixty-five—a death-rate of 1.17 per thousand for August, 1896, or 14.04 per thousand per annum.

There were one hundred and twenty-nine deaths from consumption, forty-two from pneumonia, fourteen from bronchitis, five from congestion of the lungs, four from diarrhœa, twenty-eight from cholera infantum, thirty-six from other diseases of the stomach and bowels, six from diphtheria, six from croup, four from whooping-cough, eighteen from typhoid fever, three from malarial fevers, eight from cerebro-spinal fever, thirty-seven from cancer, two from erysipelas, ninety-five from diseases of the heart, two from alcoholism, and four hundred and twenty-six from all other causes

PREVAILING DISEASES.—Reports from twenty-six localities outside of the larger cities and towns, give seven cases of pneumonia, forty-two of bronchitis, eight of pleurisy, two of congestion of the lungs, one hundred and fourteen of diarrhœa, thirty of dysentery, twenty of cholera morbus, eighteen of cholera infantum, one of croup, five of scarlatina, thirty-five of measles, thirty-two of whooping-cough, twenty of la grippe, fifty-six of typhoid fever, one hundred and twenty-six of malarial fevers, three of cerebro-spinal fever, thirteen of erysipelas, thirty of rheumatism, twenty-eight of neuralgia, twenty-nine of tonsilitis, and twenty of pharyngitis.

CLEANING RUSTY INSTRUMENTS.—Brodie gives the following as an effective method of cleaning rusty instruments (*Jour. Brit. Dent. Assoc.*): "Fill a suitable vessel with a saturated solution of stannous chloride (chloride tin) in distilled water. Immerse the rusty instruments and let them remain over night. Rub dry with chamois after rinsing in running water, and they will be of a bright silvery whiteness."—*Clinique.*

THAT long established and sterling magazine, *The Living Age*, presents in its weekly numbers the best fiction, the ablest essays, the most interesting bits of biography, adventure and travel, in a word, the most readable and profitable contributions to foreign periodical literature. At least one short story and selections of recent poetry appear in each weekly issue. Information regarding "new features" about to be introduced, with special offers to new subscribers, may be obtained by application to the publishers, *The Living Age*, Boston.

Literary Department.

THE STUDENT'S MEDICAL DICTIONARY. Including all the words and phrases generally used in medicine, with their proper pronunciation and definitions based on recent medical literature. By GEORGE M. GOULD, A. M., M. D., author of "An Illustrated Dictionary of Medicine," "Biology, and Allied Sciences," "12,000 Medical Words Pronounced and Defined," "The Meaning and the Method of Life," "Borderland Studies;" formerly editor of the *Medical News*; President, 1893-1894, American Academy of Medicine. With elaborate tables of the Bacilli, Micrococci, Leucomains, Etc.; of the Arteries, Ganglia, Muscles, and Nerves; of Weights and Measures, Analyses of the Waters of the Mineral Springs of the United States, Etc., Etc. Tenth edition, re-written and enlarged. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut Street. 1896. Price, $3.25. For sale by the Book Department of the Emporium, Market St., San Francisco.

This is called a tenth edition of the Standard Medical Dictionary, but it would seem to be an entirely new one, as the author in the preface says: "The present volume is an entirely new one, and is designed to take the place of the New Medical Dictionary and the Student's Medical Dictionary, the plates of which have been destroyed. Despite their popularity, the older editions were unsatisfactory to me, and I am determined to replace them by one that should more perfectly represent the recent rapid progress in medical science, and that would more adequately meet the ordinary lexicographic demands of the student and practising physician." We are in sympathy with the orthography adopted by the author, it is in strict accord with that advocated by the American Association for the advancement of science. Dr. Gould's pronunciation differs in many cases from that of Dunglison. It is not a matter of so much importance which has the best authority for its pronunciation, as it is, that they should adopt the same precaution. This is a very convenient sized volume, in fact it is in every way perfect as a handy students' and physicians' companion, saving the handling of the larger dictionaries, except for special occasions. The tables of nerves, bacteria, muscles, foramina, chemic elements, eponymic diseases, ptomains, leukomains, etc., seem very complete and accurate. It contains an appendix with analyses of mineral waters of the United States. For our own part we will keep this at hand for daily use, and refer to the larger dictionary for special occasions. The press-work and preface are excellent.

A SYSTEM OF SURGERY. By American Authors. Edited by FREDERIC S. DENNIS, M. D., Professor of the Principles and Practice of Surgery, Bellevue Hospital Medical College, New York; President of the American Surgical Association, etc., assisted by JOHN S. BILLINGS, M. D., LL. D., D. C. L., Deputy Surgeon-General, U. S. A. Complete in four imperial octavo volumes, containing 3,652 pages, with index, 1,585 engravings and 45 full-page plates in black and colors. Volume IV, 970 pages, 441 engravings and 23 plates. Price per volume: $6.00 in cloth; $7.00 in leather: $8.50 in half morocco, gilt back and top. For sale by subscription. Full circular free to any address on application to the publishers, Lea Brothers & Co., Philadelphia.

With this Volume IV, Dennis' great system of surgery is completed. Altogether the four volumes constitute a grand encyclopœdia of the science and art of modern surgery, in fact, this is about the most comprehensive and complete system extant. It consists in all of about 3,652 pages contributed by forty-six of the United States' foremost authors, teachers and operators. Each writer is the very highest authority on the subject-matter of his contribution. It is only by the combined contributions of a number of writers, carefully edited by one of rare ability and of extensive experience, that an extensive and thoroughly authoritative up-to-date system of surgery can be prepared. If any one person possessed sufficient knowledge on all the subjects presented in these four volumes to speak authoritatively on each, the time for their preparation would necessarily be several years. It is but twelve months since we had the pleasure of expressing our very great appreciation of the first volume of this magnificent work. The subject-matter of all the volumes is consequently new, fresh and up-to date. For instance, one of the most noticeable and important articles in the first volume is on the General Bacteriology of Surgical Infections, by Professor Welch, of Johns Hopkins; another equally important and equally up to-date article is that on the Technique of Antiseptic Surgery, by Arpad G. Gerster, M. D. The second volume more than filled the expectations of those who had read the first. The chapter on Diseases and Injuries of the Head, by Prof. Rosewell Park has given great satisfaction. Prof. Senn's article on Diseases of the Bones is very satisfactory. The section on Plastic Surgery, Dr. Geo. R. Fowler's, was prepared for the necessities of the general surgeon. One of the most interesting articles in Volume II, however, is by Dr. W. H. Farwood, U. S. A., on Military Surgery and the Care of the Wounded on the Battlefield. The third volume necessarily gave universal satisfaction, as it contained many articles by noted specialists, for instance, Syphilis, by Prof. R. W. Taylor, M.D.; Diseases of the Eye, by Prof. Geo. De Schweinitz, M. D.; Surgical Diseases of the Skin, Prof. W. I. Hardaway, M. D. The chapter on the Surgery of the Genito-Urinary system is of special interest, by Prof. Wm. White, M. D., University of Pennsylvania.

Of all the volumes, however, none is of more interest and real value to the surgeon and general practitioner than this fourth and last. The subjects treated of are all such as are demanding the special attention of surgeons of to-day. The first article is on tumors, 141 pages, by Prof. Dennis, the editor. He rejects the classification of tumors based on their clinical features, and very properly adopts a nomenclature and classification of tumors, based mainly upon their origin and structural characters. Dr. Dennis believes that malignant tumors are often permanently cured by early and effectual removal. In speaking of cases upon which he has operated he says "at the present time at least three years, and in the majority of the cases ten or more years have transpired without recurrence." The author gives an excellent summary of the present state of knowledge of the treatment of inoperable tumors by the injection of mixed toxines of erysipelas and bacillus prodigioseus, and advises to defer any positive conclusions until more clinical data are presented. The second article is on hernia, by Prof. W. I. Bull, M. D., and Dr. W. R. Coley. The medical treatment of hernia is in every sense of the word a live subject at present, and this able and authoritative article will be read with interest, and we are sure profit.

We are pleased to find that injections for the radical cure of hernia are disproved of. As the result of the modern operative procedure "we have (says the writer) collected five thousand cases with 58 deaths, a mortality of 1.16 per cent." This certainly speaks well for our new surgical technique; before the days of Lister 8 to 12 per cent of deaths was about the best that could be expected. The next 326 pages are devoted to the surgery of the alimentary canal. Maurice W. Richardson, M. D., Harvard, takes from the pharynx to the ileo-cæcal valve. Prof. Charles McBurne gives the surgical treatment of appendicitis, and of course is authoritative. Prof. Robert Abbe, M. D., gives an excellent chapter on the surgery of the liver and biliary passages. Dr. Abbe wisely advises prompt operation in every case of puncture or gunshot wound of the liver, and the removal in many cases of circumscribed tumors (non-malignant of the liver). He thinks primary cancer of the gall bladder "admits of excision and dissection from the under surface of the liver with fair hope of non-recurrence. Thirty-six pages are devoted to surgical diseases incident to women, contributed by Drs. W. M. Polk, H. C. Coe, and W. I. Lusk, N. Y., and J. L. Johnson, Washington, D. C., all specialists of the highest standing. The editor, Prof. Dennis, contributes a most instructive article on diseases of the female breast. This volume ends with the latest great contribution to surgery, viz., the use of the Roentgen or X-ray in surgery by Prof. W. W. Keene, M. D., Philadelphia. The four volumes are beautifully and profusely illustrated, the paper and print are very fine. Those who have already subscribed are more than pleased, and to those who have not yet procured this valuable contribution to surgery, we may say that they cannot afford to be without this great encyclopædia of modern surgery.

Diet for the Sick. Contributed by Miss E. Hibbard, Principal of Nurses' Training School, Grace Hospital, Detroit, and Mrs. Emma Drant, Matron of Michigan College of Medicine Hospital, Detroit. Second edition. Enlarged. Limp cloth, 16mo. 100 pages. Price, 25 cents, postpaid. Detroit, Mich.: The Illustrated Medical Journal Co. 1896 For sale by the Book Department of the Emporium, Market St., San Francisco.

In this little book there is, besides the useful formulæ for "sick dishes," foods and cooling drinks for convalescents, quite complete Diet Tables for use in anæmia, Bright's disease, calculus, cancer, chlorosis, cholera infantum, constipation, consumption, diabetes, dyspepsia, fevers, gout, nervous affections, obesity, phthisis, rheumatism, uterine fibroids. It also gives various nutritive enemas. The physician can use it to advantage in explaining his orders for suitable dishes for his patient, leaving the book with the nurse.

Qu Compends No. 7. A Compend of Gynecology. By William H. Wells, M. D., Adjunct Professor of Obstetrics and Diseases of Infancy in the Philadelphia Polyclinic; late Assistant Demonstrator of Clinical Obstetrics in the Jefferson Medical College, Philadelphia, etc. With 150 illustrations. Philadelphia: P. Blakiston Son & Co., 1012 Walnut St. 1896. For sale by the Book Department of the Emporium, Market St., San Francisco.

The author has succeeded in preparing a most intelligently condensed Quiz book. It is also well printed and profusely illustrated. Students will find it helpful.

New Orleans and Garbage Disposal.

The ordinance providing for the removal and disposal of garbage by reduction and cremation, adopted by the City Council of New Orleans in 1893, went into force about March 1, 1894. The company began its services before it was properly prepared, and as a result complaints were loud and from many sources. Now these complaints have ceased and the system is working smoothly.

The unsightly open and leaky carts, in which the garbage was formerly collected, have been replaced by water-tight iron wagons with covers. The householder has been required to provide himself with a metallic can with a tightly fitting cover for the garbage proper, instead of an old, open and dilapidated box, barrel, tin pan or other abandoned receptacle which might be obtained for the purpose. The ashes, house-sweeping and trash are placed in any kind of a box.

The reduction plant, an extensive establishment covering an area of 400x500 feet, is located about two miles from the river front and about a mile to the rear of the more densely populated part of the city. Here the garbage is subjected to the solvent action of naphtha, by which the oils and fats are extracted, and subsequently recovered by evaporation of the naphtha; the residue is then converted into fertilizers. There are also on the grounds two large crematories, in which all garbage which is so mixed with trash that it can not be treated in the extractors is burned. The ashes and house-sweepings are used as fillings for low lots·

New Orleans is making great progress in sanitation, and consequently is rapidly assuming its old position as a Southern emporium. The biennial report of the Board of Health, State of Louisiana, just published, is full of interesting matter in this connection, well worthy the attention of our four great Tennessee cities.—*State Board of Health Bulletin*, Nashville, Tennessee.

An absolutely aseptic tampon can be made of any piece of cotton by twisting it on a stick or toothpick, and dipping it into an alcoholic saturated solution of boracic acid for a moment. Applying a light to it, the alcohol burns out, while the boracic acid prevents the cotton from burning. Five seconds are enough. As soon as the flame turns green it is extinguished. The cotton is still white, scarcely warm, but absolutely sterilized. —*Practical Medicine.*

A New Use for the X-rays.

Boston, August 31, 1896.

Mr. Editor:—About three weeks ago I examined with the Röntgen rays an old fracture near the ankle-joint, in a stout woman of fifty. She had been complaining off and on of the pain in the left ankle. I found a fracture at the lower part of the tibia, with union at an angle forwards. There was slight impairment of the movements of the joint, but the result, on the whole, was good. After examining with the fluorescope, I took photographs of the ankle, with an exposure of about five minutes. I have just received the following letter, which suggests a new use for the X-rays:

August 25th.

My dear Dr. Richardson:—I feel that I should write and tell you the splendid effect the X-rays had on my foot. It is now three weeks since I was at your office, and I have not had one particle of pain since. The swelling and soreness have disappeared also. My family think it is all imagination, but that is impossible, because all that I expected from the rays was what you might discern.... Yours gratefully,

———.

The remarkable improvement in the case reminds me of the occasional cures which are by some patients attributed to the use of the clinical thermometer twice daily.

Yours very truly,
M. H. Richardson, M. D.

The First Chocolate Drinker.—Coffee was introduced into Venezuela from Arabia by the Franciscan monks, but cocoa was indigenous to the soil and was used in large quantities by the Indians for food at the time of the discovery. It was not liked by the Spaniards at first, but was introduced in France by the Franciscans, who were always enterprising, and the French cooks at once adopted it into great favor. Cardinal Richelieu is said to be the first chocolate drinker of any fame, and to have set the fashion of using it.—*Chicago Record.*

Sir James Crichton Browne says: "Over-education of females produces gastric disorders; these produce headache, and headache produces megrimous and invalid women."—*Pacific Ensign.*

Dr. D. B. Fraser, of Stratford, Ont., reports a case (in the *Canadian Medical Reporter*), where alcohol counteracted the effects of carbolic acid in an attempted suicide. Alcohol applied locally will counteract the corrosive action of carbolic acid. —*Cleveland Medical Gazette.*

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Original Articles.

THE RED BLOOD CORPUSCLE—ITS VALUE IN JUDICIAL INVESTIGATIONS.

By W. S. THORNE, M. D.

(Read before the San Francisco County Medical Society, May, 1896.)

Volumes, innumerable brochures and monographs have been written on this subject, and yet the position of the red blood corpuscle in judicial proceedings is undetermined, the medical mind is unsettled and the opinions of experts conflicting. It will be understood that the term red blood corpuscle in this paper designates the human corpuscle when not otherwise expressed. I shall not attempt to harmonize discordant expert opinions, nor shall I detain you with arguments upon the one side or upon the other. I shall simply present to you what appears to be the most conservative and natural conclusions of recent authorities on the differential diagnosis of blood corpuscles and their value in judicial investigations. In criminal trials the medical witness is called upon to determine whether stains acknowledged to be blood are the blood of a human being or the blood of one of the lower animals. The examination of blood and blood stains calls for the consideration of: 1st. Physical characteristics. 2nd. Chemical reactions. 3rd. Crystaline properties. 4th. Optical properties. 5th. Microscopical appearance of blood-corpuscles and other constituents of blood. So far as present scientific knowledge goes, the white corpuscles furnish no source of information in discriminating between the blood of man and that of other animals[1] and have no place in the present discussion.

The Morphology of the red corpuscle has been carefully studied, but up to this time comparatively little of its structural arrangement is known, nor has the phenomena [2] which it displays been explained.

The Form.—It is admitted that the blood of all vertebrate animals consists of small corpuscular structures floating in the liquor sanguinis. These consist of red corpuscles, white corpuscles and blood plates.[3] The red corpuscle which is the subject of this paper and of chief interest in forensic medicine is a circular disc depressed in the center in all the mammals except the camel and the anchuria. The elliptical or oval discs with central prominences are seen in the blood of all birds, amphibia, most fishes, and of mammals, the camel and the anchuria.[4] The microscope enables the observer to distinguish without difficulty the blood of birds, fishes and reptiles from mammalian blood by the organic structural difference in form. The red corpuscles as seen in the blood contain no nuclei, but nucleated red corpuscles are found in the marrow of bone. Prof. Formad, of Philadelphia, whose recent studies of blood with high powers are of great interest, claims that the so-called red corpuscles of the blood are, as a matter of fact, not red but yellow, and that the apparent nucleation is due to their biconcavity, on account of which the center of the corpuscle appears dark in one focus with a dark periphery, while in another focus the reverse occurs. He also claims to have demonstrated by the test of the venom of serpents that they have no cell wall or membrane, and that in fact what seems the cell wall or membrane is merely the outer hardened layer of the protoplasm.

The Methods of Investigating Blood.—Three methods of investigating blood have been employed by scientific observers, viz: Chemistry, the spectroscope and the microscope, with its accessories, the micrometer and the microphotograph. The highest chemical authorities unite in the statement that there is no ascertained chemical difference between the blood of man and that of animals. The spectroscope reveals simply the presence of blood. Hence, the microscope is at this time the only known means of distinguishing human from other blood.[5]

The Red Blood Corpuscle.—The basis of microscopical research in medical jurisprudence is a very minute object. Its size appears to vary with the number of the observers, the different races from which it is obtained, and its size is not uniform even in the same individual, and in certain diseases that are prevalent and common to the human family, its size is variously modified. Prof. Gram, who has given much personal attention to the subject of measurement of the red blood corpuscle, and who has also carefully studied the literature of the subject, finds, according to the investigations of others, that the size varies, the diameter increasing in passing from southern to northern climes. Bizzozero[5] gives the average of the Italian red blood corpuscle as 7.0 to 7.5 m.m. Malassez, whose measurements refer to France, states that 7.5 m.m. to 7.6 m.m. is the average diameter. In Germany, 7.8 is taken as the average, while Loocke, who writes of the measurements made of the blood corpuscles of the Norwegians, gives 8.5 m.m. as the average. Gram gives exact measurements in some of which the corpuscle measured 9.3 m.m. In young children a longer diameter and greater variation are met, some measurements reaching as high as 10.3 m.m.[6] My friend Prof. Geo. O. Mitchell,[7] of the San Francisco Microscopical Society, who has made some interesting measurements of the blood of man and of different animals, says that in his comparison of the blood from the same animal he expects a variation of 3 m m. His average of the human corpuscle is from 8.22 m.m. to 7.98. Prof. Ewell from 9.98 to 5.03. Prof. Treadwell, of Boston, with a $\frac{1}{25}$ in. objective and a Jackson eye-piece micrometer, from 5.763 to 9.394. So we perceive that between the maximum and minimum range even by the most reliable observers there is a broad disparity of size which constantly varies with the observer. Nevertheless it has been quite satisfactorily established that the difference in the measurement of a series of corpuscles by experts using high powers may not vary more than 1/100,000th to 1/150,000 of an inch.[8] But it must be borne in mind that not unfrequently corpuscles from the same blood vary in size and even in different portions of the same slide.[9] This variation is a diminution or contraction, thus bringing it nearer the blood of lower animals, which is an important fact in medico-legal inquiries, so that human blood may thus be confounded with that of an animal having markedly smaller corpuscles, but never the reverse.

The Microscopical examination of blood is of the utmost importance in medico-legal inquiries, often involving the guilt or innocence of persons accused of crime. Hence, it becomes the task of the expert to ascertain if a given stain or substance shows the presence of blood, and second, he is required to show, if possible, to what animal, or class of animals, it belongs. He must identify the corpuscles with those belonging to some particular class of animals and establish, if possible, a differential diagnosis.

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m.m. = micro-millimeter.

The difficulties attending such a demonstration are: first, the absence of a fixed standard of measurement for the red-blood corpuscle due to personal equation and the defects of instruments; second, the pathological and anatomical variations of the red blood corpuscle, and third, the close approximation of the human corpuscle to the red-blood corpuscle of several of the domestic animals.[10] The most reliable experts of the present day admit that different specimens of blood from the same individual give corpuscles of varying size and even marked variations in different parts of the same slide. The pathological conditions of the blood affect, to a marked degree, the size of the red corpuscle, both increasing and diminishing their diameter,[11] for example: anæmia associated with hæmorrhages is characterized by abnormally large corpuscles. In pernicious anæmia and inanition the corpuscles are much smaller than normal while others are much larger, the small corpuscles varying in size from 3.3 m.m. to 12 and even 14.

So likewise is the size of the red corpuscle affected in tuberculosis, plumbism, gastritis, syphilis, erysipelas, and in extensive burns reaching from 2 to 4, carbonic acid-poisoning, fevers with high temperatures and in septicæmia. Now, as to the difficulty of certainly distinguishing between the corpuscles of man and those of domestic animals much diversity of opinion prevails. We have experts among us who boast of having sent persons charged with crime to the gallows upon the certainty of a microscopical distinction between human blood and that of the lower animals. When we consider that microscopical opinion as to the source of blood is usually, if not wholly, based upon measurements of the red corpuscles, that measurements of the same corpuscles vary with different observers from the one-millionth to the one hundred-thousandth of an inch, a difference often greater than that which exists between the blood of man and[12] that of some of the lower animals, such statements appear appalling. Let us illustrate by an example drawn from a very familiar domestic animal, viz: the guinea-pig. The average size of the red corpuscles of this animal, as given by Prof. Wormly is 1/3235 of an inch, the average of the red corpuscle of man is given by the same author as 1/3250, the difference, therefore, between the size of the corpuscles of man and the guinea-pig is 37/10,474,750 or 1/283,398 of an inch, a difference much less than is often found between human cor-

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m.m.==micro-millimeter.

puscles on the same slide and still less than the maximum and minimum difference of averages of human corpuscles by groups of hundreds. Such examples of close approximation to human blood is observed in the case of the blood of the dog, monkey, muskrat, opossum, rabbit, rat, etc. Prof. Ewell says in his address to the American Microscopical Society: The very utmost the present state of science enables us to state is that the blood in question is, or is not, that of a mammal, a bird, a fish or reptile. To say more than this is, in my judgment, without warrant, to imperil human life, and in the words of the late Dr. Woodward to make scientific experts more dangerous to society than the very criminals they are called upon to convict.

To this very conservative statement of Dr. Ewell the objection is raised that his investigations in blood measurements were conducted with low powers ranging from 100 to 500 diameters, and that with powers ranging from 1,000 to 3,000 diameters the distinction between human blood and that of the lower animals is easily and certainly made by careful and competent observers. We find that such authorities as Profs. Woodward, Richardson, Treadwell, Wormly, Piper, Formad, Ewell, Taylor, Hans Schmid and Gulliver do not agree in their standard, for example, the average diameter of the human red corpuscles is 1/3200 of an inch. Reese says the maximum is 1/2000, minimum 1/4000. Dr. Stevenson places the maximum at 1/3000 and the minimum at 1/5000 of an inch. Gulliver places the average human red corpuscle at 1/3200, the Medico-Legal Society of France 1/3257, Wormly 1/3250, Masson 1/3257, Formad 1/3200, Hans Schmid 1/3412.[13] These admittedly careful and competent observers often differ also in their averages of large numbers of corpuscles, and we may reasonably infer that in the examination of blood and blood stains, even by the most careful and competent, there are sources of error that may not be eliminated, such, for example, as personal equation, optical defects and differences in skill or judgment of the operator.[18] Another source of error is said to arise from the uncertain limit of the edge of corpuscle, which often presents a wooly appearance.[14] Another source of error arises from the fact that the corpuscle of mammalian blood is a bi-concave disc with a thick border, thin at the center and falling off to a rounded edge, which acting like a section of a convex lens produces the appearance of a dark ring surrounding the corpuscle. Now, some observers measure the whole of this dark ring, others measure one-half of the ring, while others reject the dark border as no part of the corpuscle. Dr. Woodward in the Hayden trial at New Haven[15] testified that he measured from the center of the dark border on the one side to the center of the dark border on the other side. The different methods of observers in measuring the whole or a part of the dark border, or in rejecting it altogether, render the statements in the journals and in works on legal medicine very uncertain in this regard. It is obvious that the methods employed by observers must have great weight in the value and accuracy of the results. This difference in methods of examination probably explains such differences as $\frac{1}{27152}$ in the corpuscle of the opossum and that of the guinea-pig in the comparative measurements of Profs. Gulliver and Wormly. Again, Prof. Formad[16] challenges the correctness of Prof. Wormly[17] and Dr. Woodward, and so on, throughout the literature of the micrometry of the blood. It is evident therefore in this lack of agreement as to a standard measurement that there are sources of error in the microscopical examination of blood that render its unqualified admittance as an evidence of crime uncertain and dangerous.

There is no question that by the aid of the microscope of higher powers under favorable conditions the blood of man can be distinguished from the oval and nucleated cells of bird, fish and reptile; but in the case of certain mammalia the approximation is so close that no expert is justified in saying that the blood is really human. The general conclusion reached by Prof. Wormly is that the microscope may enable us to determine with great certainty that a blood is not that of a certain animal, and is consistent with the blood of man; but in no instance does it in itself enable us to say that the blood is really human, or indicate from what particular species of animal it is derived.[19] Prof. Chas. O. Curtman, in an article on blood stains as evidence in criminal cases, read at a meeting of the St. Louis Medico Chirurgical Society, says: Not very long ago it was imagined by the public, and even by members of the profession and enthusiastic admirers of the microscope, that human blood might be positively and easily identified by the microscope. But by degrees the illusion in regard to the positive and unassailable results of the microscope has vanished, and at present (especially since the thorough investigation of the subject by Dr. J. J. Woodward, U. S. A.), no expert would be bold enough to assert in the face of contrary evidence that he can positively identify human blood by any micrometric device. The blood discs of the dog especially are so nearly of the size and shape of those of human blood that no means at present known enable us to discriminate with absolute certainty between the two, even in the fresh state, much less after having been dried and subjected to the methods of preparation necessary for microscopical investigation.[20]

The spectroscope does with great accuracy reveal the presence of blood by the absorption bands characteristic of the hæmoglobin, but it cannot make any distinction between the various red blood corpuscles.[21]

But even with all these difficulties overcome, and could the minutest distinctions be made between the different kinds of blood, such evidence would in many cases be rendered absolutely nugatory by doubts thrown upon the source of the blood and the manner of transfer to the stained article. He then proceeds to show that blood stains of considerable size are made by predatory insects such as the mosquito and *cimex lectularius*, familiary known to some of us as the festive bed bug. These insects Prof. Curtman allowed to become gorged with human blood, and were examined at various intervals, when it was found that up to 48 hours in the case of the mosquito, the human blood was found still unchanged, and quite readily recognizable, the human blood yielding a measurement of 1 3200 of an inch while the corpuscles of the mosquito measured 1/4000 of an inch. In the bed bug not a trace of the human blood could be detected after 12 hours. The late Col. Woodward, U. S. A., testifying as an expert in the Hayden trial, stated that he had measured 20 corpuscles from a young dog, 40 from another, and 50 from a third in which he found the average of the corpuscles from each one of the dogs larger than the recognized average size of human corpuscles. This same expert has published measurements of the blood of other dogs so large that he infers that there is no safety in attempting to state positively that a given stain is the blood of man, and that it could not be the blood of the dog. Another fallacy in the examination of suspected blood stains is the possible presence of vegetable spores, which in appearance and size closely resemble blood corpuscles. These spores have a diameter of about 1/3300 of an inch, and in several instances have been pronounced human blood corpuscles. Several instances of this kind have occurred in the experience of Prof. Wormley.[22] [23]

In a paper on Blood and Blood Stains by Prof. Clark Bell, read before the Medico Legal Society, the consensus of opinion favored the following propositions: 1st. That there is no great difficulty in distinguishing between human blood and that of birds, fishes and amphibia generally. 2d. That by careful and competent observers with instruments of high power, a reliable discrimination could be made between human blood and the blood of mammals, when the size of the red blood corpuscles was much smaller than those of man, notably the ox, the horse, the goat, the sheep and the pig. 3rd. That the blood of the dog, the rabbit, and the guinea pig so nearly resembles human blood in the size of the red corpuscle that it was exceedingly difficult if not impossible to distinguish between them and divided opinions upon this subject exist among the observers, Profs. Reese, Formad, Reyburn, and others claiming that by the employment of high powers up to 10,000 diameters, the difference in diameter becomes so great when thus magnified as to make it apparent in all mammals except the guinea pig, while Prof. Ewell and others deny that the result of their investigations are such as to make it certain and absolute when in doubtful cases human life is at stake. From a careful and unbiased examination of the present state of microscopical science in relation to the examination of blood and blood stains in criminal cases the dictum of Prof. Wormly in his masterly treatise is the most consistent and conservative, and should guide the judicial mind in its deliberations upon the subject, viz.: "That the microscope may enable us to determine with great certainty that a given blood is not that of a certain animal and is consistent with the blood of man, but in no instance does it in itself enable us to say that the blood is really human, or indicate from what particular species or animal it was obtained."

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VALUE OF VACCINATION.

By F. H. PAYNE, M. D., Berkeley, Cal.

Apropos to the hostility to vaccination manifested in Berkeley and the present attempt to enforce vaccination of school children, attention is called to the able and exhaustive article of Prof. Eugene Foster, of Georgia, read before the American Medical Association at the Jenner Centennial Celebration held at Atlanta, Georgia, May, 1896, and published in full in the *The Journal*, Sept. 26 to Oct. 17th, inclusive. The title of the article is "The Statistic Value of Vaccination to the Human Race, Past, Present and Future." A few extracts may not be amiss. He prefaces his article by quoting Dr. George Derby as follows:

"Nothing, however beneficent, can escape the criticism of the times in which we live. The criticism of vaccination, often passionate and violent, relates chiefly to points which, however interesting they may be, leave the main question unaffected. We may speculate about the possibility of the potency of vaccine being exhausted in the human family; we may be surprised to find that people with good vaccine scars sometimes have smallpox; we may dispute as much as we please, about the average period when re-vaccination may be considered a prudent safe guard; but after all we find that we rest in a security against the horrid pestilence of smallpox unknown to former generations."

The great Jenner has long since gone to his reward; vaccination has reached a century old; millions of human lives, as I shall show, have been preserved by the fruits of Jenner's genius, yet to-day, no less than one hundred years ago, thousands upon thousands of men, some intelligent though designing, some intelligent though deluded, the great mass of them fanatical and ignorant, decry vaccination as not only being of no service to humanity, but positively a nuisance, injurious to health and life, while millions of our fellow men are utterly ignorant of, or indifferent to the matter.

In life, Jenner wisely and persistently insisted that the decision as to the value of his discovery should rest upon that keenest of all arguments for or against the practice of vaccination, "those which are engraved with the point of the lancet."

Unless you are familiar with the history of smallpox in pre-vaccinal times, and know what it is at the present day independent of vaccination, you cannot form a proper estimate of the beneficent results of Jenner's discovery. I shall, therefore, first show what smallpox was in pre-vaccinal times; and, second, what it is to-day in individuals and communities who neglect to avail themselves of its benefits.

PROPOSITION 1.

Smallpox uncontrolled by vaccination, was one of the most universally prevalent and destructive diseases of the human race. I shall first show this by historic records, both professional and non-professional.

Prior to the introduction of vaccination, smallpox, except in remote or isolated populations, having infrequent and difficult intercourse with the business world, was a well nigh universal disease, existing continuously as an endemic in large communities, and breaking loose from its endemic haunts every few years it assumed epidemic and not infrequently pandemic proportions. All classes, conditions and ages of people were attacked by small pox. While most fatal and prevalent in the over-crowded homes of the poor, it spared not the dwellers in mansions, nor the palaces of kings. So universally prevalent was smallpox that it was quite exceptional in populous communities for anyone to reach adult age without having been attacked by the disease. In 1518 smallpox concurred with fire and sword and famine to complete the depopulation of St. Domingo. In the sixteenth century smallpox invaded Mexico, destroying three million, five hundred thousand of her population. In 1563 smallpox spread over Brazil and exterminated whole races of men. In the Province of Quito (according to De la Condamine), it caused the death of 100,000 Indians. It decimated Siberia and Kamschatka. Several times this destructive disease has well nigh depopulated Greenland and Iceland. Under the devastation of this cruel and relentless enemy communities literally dissolved themselves. Remote and unprotected populations in North America have been most cruelly scourged by epidemics of smallpox. Macaulay, the great English historian, speaking of the smallpox near the close of the seventeenth century, says: "That disease (smallpox), over which science has since achieved a succession of glorious and beneficent victories, was then the most terrible of all the ministers of death. The havoc of the plague had been far more rapid, but the plague had visited our shores only once or twice within living memory; and the smallpox was always present, filling the churchyards with corpses, tormenting with constant fear all whom it had not yet stricken, leaving on those whose lives it spared, the hideous traces of its power, turning the babe into a changeling at which the mother shuddered, and making the eyes and cheek of the betrothed maiden objects of horror to the lover." Toward the end of the year 1694 this pestilence was more than severe. Sir Gilbert Blaine says: "It is greatly within the truth to assert that smallpox has destroyed a hundred for every one that has perished by plague." And later says: "When there was no vaccination in our navy one-fifth of all the men enlisted died of smallpox."

Bernouli, writing in 1840, said: "Great as were the ravages which the plague often caused in Europe, smallpox carried off more victims in the last century than the former disease did in any any other. Certainly smallpox is not deadly as either the plague or cholera. Formerly one-third of the cases among little children terminated fatally, but altogether only one-sixth to one-eighth of the total number of cases. On the other hand the disease (smallpox) had become an endemic contagion in Europe which nowhere completely died out, to which nearly all individuals were susceptible, and from which but few escaped before even their tenth year. Of 100 adults only about four or five remained unattacked. It was calculated that two-thirds of all the children born succumbed to it. In former times, too, there was greater probability of an individual dying from smallpox. According to the London list of 1708 to 1750, eight out of every one hundred deaths were caused by smallpox. In Berlin the smallpox mortality from 1783 to 1797 was one-twelfth of the total. Those who were carried off by that disease were naturally almost all children.

PROPOSITION 2.

Smallpox in a population unprotected by vaccination is as generally prevalent and fatal disease at the present day as in the pre-vaccinal period.

Dr. Makena describes an epidemic of smallpox in the Argentine Confederation from 1846 to 1848, as sweeping with the wings of death over that enormous tract of country which extends from the seaboard of the Atlantic on the East to the Corderilla of the Andes on the West. Throughout this whole space it may be said that hardly a single house or ranch escaped its fearful visitation, wherever the current of human intercourse reached, and such was its fatality that I have known thirty children taken in one morning from the houses of one quadra of a street 150 yards long. Whole families were swept away and in short the terrors of the plague of former times were, if not surpassed, fully equalled by this horrible scourge. But that which struck me as most truly remarkable was that *no one of those English people who had been vaccinated at home and who had large, deep, oval thimble marks on one or both arms, ever took the disease.*

In California, in early days, according to Drs. Logan, Gibbons and Hatch, who personally witnessed the disease, smallpox prevailed to a greater extent than ever before known and with a virulence and fatality which has not been surpassed. It was, if possible, more severe in private practice than in hospital. Dr. Hatch, in Sacramento, reported 1 death in 3.2 in hospitals, and 1 in 2.9 in private practice, making the rates for deaths for both 1 in 3. This agrees with the observations of Dr. Logan, who reports 1 death to every 3 in Sacramento, and 1 to every 2.5 in San Francisco. When we bear in mind that the usual death-rate for smallpox, before the introduction of vaccination, did not exceed 1 in 5 or 6, we will agree with Dr. Logan, "this fatality is almost unprecedented in the annals of this disease."

In California, Dr. Logan, physician to the smallpox hospital, Sacramento, says: "The primary and chief cause is inattention to vaccination. The large proportion of deaths that have occurred, especially in children and in a certain class of the floating population of California, particularly the Mexicans, South American or California nativity, shows that the extensive prevalence of smallpox in our midst is not due to the failure of the anti-variolus power claimed for vaccination, but to the neglect or absence of its protecting influence."

From far-off India comes a most convincing argument, which I quote from a medical journal: "Although the epidemic of smallpox visits the northwestern provinces of India in a fearful manner, causing 58,800 deaths in the single year of 1878, all attempts at introducing vaccination as a protective measure were resisted by the superstitious natives. They looked upon smallpox as a visitation from a deity, called by them Sitta, whose anger had to be appeased with special sacrifices and plagues. The faithful Hindoos considered it an act of impiety to still further incite the wrath of the deity by the administration of unholy medicines or vaccination.

"In spite of all this, however, vaccination, although under peculiar circumstances, was gradually introduced among the natives. The Thakers, a tribe that still practices infanticide to a horrible extent, first allowed their female children to be vaccinated, being convinced of its fatal termination, and hoping thereby to get rid of this superfluous progeny. All the sons, however, were carefully guarded against vaccination. Smallpox broke out in four of their villages a short time after, which carried off nearly all the boys while the girls escaped the disease. This unlooked for termination induced the natives to resort to the opposite practice, compelling the boys to be vaccinated while the girls were left unprotected. Besides this a large number of cases were observed where children were concealed by their families from the vaccination; in almost all instances these died, while those vaccinated escaped smallpox." Even one such remarkable and unanswerable illustration as this should convince every one of the utility of vaccination.

PROPOSITION 3.

In every nation upon earth where vaccination of the populace has been generally resorted to, a marked decrease in the smallpox death-rate has invariably followed. While statistical data are not available from all countries using vaccination as a weapon of defense against smallpox, the great English sanitarian, John Simon, with the assistance of Mr. Hailie, has prepared a table which conclusively demonstrates the great and positive benefits in controlling smallpox. This table shows two varieties of facts: "1. How many persons in each million of population died annually of smallpox before the use of vaccination, and 2. How many persons in each million of population have annually died of smallpox since the use of vaccination." The author draws the conclusions, as the reader may also do, between the case of Sweden in the twenty-eight years before vaccination and the forty years afterward. "During the earlier periods there used to die of smallpox, out of each million of the Swedish population, 2,050 victims annually; during the later period, out of each million of population, the smallpox deaths have annually averaged 153. Or, taking to metropolitan cities, you find that in Copenhagen, for the half century, 1751 to 1800, the smallpox death-rate was 3,128, but for the next half century only 286; and still better in Berlin, where for twenty four years preceding the general use of vaccination, the smallpox death-rate had been 3,422 for forty years, subsequently it has been only 176. In other words, the fatality of smallpox in Copenhagen is but an eleventh of what it was; in Sweden, a little over a thirteenth; in Berlin and large parts of Austria but a twentieth."

These statistics show that the adoption of vaccination has been followed by a reduction of the smallpox mortality to a tenth and a twentieth of its former magnitude.

PROPOSITION 4.

As vaccination became more general smallpox decreased in extent and fatality.

Dr. Ogle reviews the statistics of smallpox in England and Wales from 1838 to 1887, inclusive, accurately kept in the office of the Registrar General—the civil register having been commenced in 1837. The Registrar General's return shows the smallpox death-rate and the smallpox deaths in proportion to population for each year during the period 1838 to 1887, except the four years 1843–6, during which four years no returns were tabulated in the Registrar General's office.

Dr. Ogle presented the table which shows that the smallpox deaths in 1838 reached 1,064 per 1,000,000, and that in only one year in 49 years (1871) did smallpox deaths ever approach that of 1838. He then divides the deaths in these forty-six years into three periods: First, 1838 to 1858, inclusive, in which vaccination was nominally compulsory, but no effectual means of enforcing it made it practically optional. In this period the smallpox death-rate was 403 per 1,000,000 population. The second period, 1859 to 1871, inclusive, in which vaccination laws were more efficiently enforced (though not thoroughly carried out), the smallpox death-rate was 223 per 1,000,000. The third period, 1872 to 1887, when compulsory vaccination was thoroughly enforced the smallpox death-rate per 1,000,000 population was 114, thus demonstrating a marked progressive decrease in the smallpox death-rate corresponding in time with changes in the vaccination laws. The decline from 1887 was about 7.2 per cent.

PROPOSITION 5.

Notwithstanding a marked decrease has occurred in the total smallpox death-rate, a still greater decrease has taken place in the smallpox death-rate among children. From the mass of statistics at hand to demonstrate this proposition, I select the evidence relative to the value of vaccination as shown by the enforcement of the compulsory laws of Great Britain. Prior to the enactment of compulsory vaccination laws 70 to 80 per cent of the annual smallpox mortality of Great Britain was among children under 5 years old. What has been the average annual mortality in this class since compulsory vaccination? The law requires vaccination of children at three months of age. The compulsory vaccination law of 1853 was very defective in that the machinery provided for registration of births and vaccination thereafter, was not such as to enable children falling within the provision of the law. Defective as it was in this respect, it yet had a salutary effect, for the vaccinations among this class were more than double over the same period anterior to the enactment of the law. It must be admitted that this result was largely due to the knowledge of parents that if they failed to comply they laid themselves liable to a penalty for such neglect. In a few years we see the annual smallpox death-rate reduced to 55 per cent of the total mortality from this disease.

PROPOSITION 6.

In every epidemic of smallpox, the unvaccinated portion of the population has, without exception, shown a vastly greater proportional attack rate as well as death rate from smallpox relative to their numbers than the vaccinated.

In a severe epidemic of smallpox which prevailed at Norwich in 1819, Mr. Cross minutely observed 112 families, in all of which there were cases of the disease. Among 215 persons unprotected by vaccination there were 200 cases of smallpox, and of these forty-six proved fatal; while among ninety-one vaccinated persons the only effects of this terrible infection were: 1, that one girl, who had been vaccinated nine times, "had a mild disease, limited to twenty pocks, and lasted only six days before it began to decline;" and 2, that another, who had been vaccinated five years, went through "the disease in half the time (to her unvaccinated sister) without danger or detriment, a few very minute pits upon the tip of the nose being the only permanent traces."

Mr. Cross mentions that he met with several who were supposed to have had smallpox formerly, yet notwithstanding took it on this occasion; but he does not state whether such cases are included in the above summary. In this epidemic the vaccinated slept in the same rooms, and in some instances, in the same beds, with those having smallpox. So also (as quoted by Steinbrenner), in Copenhagen, of 659 vaccinated persons who suffered in the variolous epidemics, 1823-27, only 5 died, being at the rate of 1 in 132; while of 176 unvaccinated persons who contracted the disease, more than a fourth seems to have died, and of 153 others, who professed previously to have had smallpox, there died 31. And similarly in the epidemic of 1828–30, and part of that of 1832–37, it seems that out of 228 unprotected patients, 63 had died; but of 1,373 cases of post-vaccinal smallpox only 14 were fatal.

In Chicago only seventeen cases of smallpox have occurred in the last fifteen years among the well-vaccinated public school children of that city, whose average number exceeded 200,000. Dr. Clendenin, health officer of Cincinnati, Ohio, says that in the epidemic of smallpox in that city (1868-69) 95 per cent of those who died of smallpox were among the unvaccinated. He further says that no death occurred from smallpox in which there was unmistakable proof that the individual had been properly vaccinated.

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THE number of physicians in Santa Clara County who have associated themselves against the practice of lodge-doctoring has reached 120, and includes every physician in the county.

ROENTGEN RAYS.

By PHILIP MILLS JONES, M.D., San Francisco.

Seldom has a discovery been made so startling in its nature and so valuable in its applications, as that of Prof. Roentgen. The vacuum tube, excited by discharges of a high tension electric current, has been a fruitful field of investigation for some years, and a great deal of information, valuable not only to science, but also in the arts, has been obtained by such workers as Giessler, Crookes, Hitthoff, Lenard, Thomson and Tesla. Several times have investigators been, unknowingly, on the verge of Roentgen's discovery, but always the true import of the phenomena they noted has gone unrecognized, and a form of radiation totally distinct from either anodic or cathodic, not been suspected.

Intensely interesting as is this question, it is quite impossible for me to take up the subject of the X-ray and discuss what is known and unknown about it. Yet even in this connection, a few words on the new phenomenon, in the abstract, are necessary. It is produced by the passage of a high tension current through a vacuum tube of a certain exhaustion—less than 2 mm.—and the conditions necessary to the production of the X-rays in sufficient number and intensity to be useful, are various and complicated. Opinions differ within the widest limits, as to the nature of the X-ray, and whether it be a longitudinal ether wave, a transverse ether wave, a longitudinal air wave, a condensational ether wave, or a stream of projected particles, is a question that will not be unquestionably proved for some time. Personally I am of the opinion that we have to deal with longitudinal ether waves.

Whatever may be the uses found for Roentgen rays in the future, there is no doubt of their extreme value in medicine, more especially in surgery,—and so far as present indications show, this will be their chief field of usefulness. Two methods are available in making examinations by the Roentgen ray: the photographic plate, which leaves a permanent record, and the fleurescent screen, which gives an immediate view of the part examined. A permanent record, such as that furnished by the radiograph, is too valuable, for reference and careful study, to be supplanted by the fleurescent screen examination, no matter how convenient and useful the latter may be. So undoubtedly the two will go together, the hasty examination with the screen being followed, in most cases, by the radiograph which not only leaves an imperishable picture, but also makes evident conditions which are not observable with the screen.

I have had great difficulty in finding out the most satisfactory conditions and adjustments of apparatus, and my work has been much interrupted by accidents and slight mischances that have been very annoying. Fortunately, however, San Francisco possesses a glass-blower—Mr. Lamont, Thurlow Block,—of unusual ability and of a scientific turn of mind, and his patience and perseverence have enabled me to find out the most satisfactory style of tube, and to obtain one which, with an ordinary induction coil, will give excellent results. These tubes are far better than any of the Edison or English tubes, that have come within my notice. With these tubes, excited by a coil capable of giving a four inch spark in air, I have examined with the fleurescent screen, and made radiographs, of all parts of the hands, forearms, elbow joints, arms (except the shoulder joint), feet, legs, knees, and thighs, and have located bullets, pieces of needle and glass, fractures, dislocations, and patches of necrosis. Several tumors have been examined with very gratifying results, but as yet it is difficult to differentiate, owing to lack of standards. Within a short time I hope to increase the range of possibility of my examinations, by improved apparatus, and to include all the joints and regions of the body. This is quite within the range of possibilities, but requires apparatus and arrangements totally different from those at present at my command.

The following cases are some of those which I have examined and they will serve to indicate a few of the points of great value of this new aid to medical science, even in its undeveloped form.

Case 1 was a piece of the point of a needle, ¼ inch long, in the end of the little finger of the right hand. The needle had been in situ for some four or five months. It was exactly located, and easily removed by reference to the radiograph.

Case 2 was an old fracture and dislocation of the second and third metacarpal bones of the left hand. The deformity is clearly indicated in the photograph. Case 3. The point of a lead pencil had been broken off in the ball of the right thumb, and though provoking some pain, its whereabouts could not be exactly ascertained until the X-ray located the precise spot. Case 4 was a supposed fracture of the third metacarpal bone of the right hand, but the radiograph showed the trouble to be a dislocation and not a fracture. Case 5 was one in which the

X-ray served to locate a bullet imbedded in the tibia for some 20 years. It was giving no trouble, and so has not been removed, but this could be done at any time and very easily, with the guidance of the radiograph. Case 6 is somewhat similar to to case 5. In this case the elbow and forearm had received the contents of a shotgun some 25 years ago. Most of the fine shot were removed at the time of the accident, but a goodly number yet remain, and they were easily detected by the means under discussion. Case 7 was that of a sensitive stump left after amputation, some years ago, of the right forearm. The cause of the continuance of the irritability was seen, from the radiograph, to be the sharpened extremity of the ulnar. Case 8 was referred to me by Dr. Crowley, of Oakland, and was one of the elbow injuries so commonly met with in children. An excellent negative was obtained, clearly showing the line of fracture of the humerus, and a dislocation of the radius and ulnar. Case 9 was also referred by Dr. Crowley and the radiograph was taken in order to ascertain the amount of deformity resulting from an old fracture of the femur which had for a long time persisted in not uniting. The negative showed clearly the amount of calous and the deformity, which latter was not so marked as had been expected. Case 10 was referred by Dr. Sill, of Oakland, and was a gun-shot wound of the thigh. By means of the X-ray the position of the bullet was ascertained as well as the fact that the femur was uninjured. The probe had not successfully located the ball. Case 11 was an anchylosis of the metatarso-phalangeal articulation of the great toe of the right foot, and the radiograph obtained, showed very plainly the ossified condition of the joint. Case 12. The picture, in this case, was taken in order to ascertain the amount of deformity of the metatarsal bones of right foot, and whether or not there was present any bony lesion. The case was a very unusual one. Case 13 shows an ossification of the bursa achilles and an exostosis of the oscalsis, to be the causes of much pain, and a practical inability to walk. The exact nature of the trouble was not known until revealed by the radiograph.

Case 14, referred by Dr. Buckley. This case was one of old compound fracture of the tibia with resultant necrosis, and the radiograph obtained was particularly valuable, for it called attention to a patch of necrosis in a previously unsuspected location. Case 15 was referred to me by Dr. Lowry, and was supposed to be an exostosis. The tumor was located 3 inches above the knee joint, was very hard, and quite immovable. The radiograph showed the tumor to be of different structure from the bone, to which it was but slightly attached.

Case 16 was an old fracture of the second phalanx of the little finger of the right hand, and is of interest only as showing the deformity. Case 17 was of considerable interest, as the object was to locate a very minute particle of glass in the end of the middle finger of the left hand. The piece of glass was so small (about 2 mm. and 1 mm. in diameter) that it could not be seen while the plate was being developed, though it shows faintly in a print from the negative.

Thus far I have not been able to get results that would be of any value in determining the condition, normal or abnormal, of the organs or soft parts, though I am led to believe that improved methods and apparatus will sooner or later enable us to achieve that result.

The foregoing was written some months ago; publication, however, having been delayed, I am now requested by the editors to "bring the subject up to date." Press of time prevents my complying literally with this request, but a few words are certainly necessary, for great progress has been made in these last few months. Improvements in apparatus have necessitated changes in tubes, which again have necessitated further modification in apparatus. Mr. Lamont has worked with me hard and patiently until he has succeeded in making what is, in my experience, the best tube available for diagnostic purposes.

At present I am using two coils, as circumstances indicate the necessity for a current of less or greater tension. I use either an 8-inch spark coil or 15-inch coil. With use the tubes increase in vacuum and the current tension must be increased correspondingly in order to produce the strong X-rays which alone are useful in diagnosis. As the tube is not a constant quantity but exists on a sliding scale, it is evident that it must be constantly watched and studied until the conditions best suited for the examination of the particular case on hand are secured.

Thus far, I have examined by the X-ray between 400 and 500 cases, embracing almost the whole range of fractures, dislocations and bone diseases, and including many cases of tumors and several of pulmonary tuberculosis. With a good tube and proper adjustments it is as easy to examine the lungs as to see the bones in the hands or arms—in fact, is easier—and any area of solidification as large as one-half inch in diameter I am able to find and exactly locate, and the diagnosis in these cases is not a matter of opinion—it is the visual presentation of actual conditions. Naturally, as the subject is still new, it is sometimes difficult to satisfactorily interpret the pictures which are made for us by the X-rays. But the errors of yesterday are being corrected by the experience of to-day, and the percentage of probable error is being brought surprisingly low and will soon be practically eliminated.

In regard to the time of exposure required for a radiograph, which is a question often asked of me, I can only say that it is of necessity a variable quantity, depending upon the particular tube used, and the condition of the tube at the time. I have secured an excellent radiograph of the hip-joint in seven minutes, and again, under less favorable conditions, have obtained good negatives of the same joint in from twenty to thirty minutes. It is safe to say that if a result is obtainable at all, it is quite possible to secure it within thirty minutes. Of course, this only applies when the exposure is made while the tube is at its maximum. With tubes and conditions such as now used by me, a negative of the hand is never given more than one and a half to two minutes exposure.

The range of usefulness of this new instrument for diagnosis can scarcely be realized by any one who has not had some personal experience with it; but those who have had occasion or opportunity to employ the X ray are, I think, united in saying that it is invaluable. I am strongly of the opinion that ultimately one of the chief uses of the X-ray will be in the examination of cases of supposed consumption; it is so easy to *see* whether there is or is not an area of consolidation in the lungs, and if so, exactly where it is.

The next eight months may bring about as many improvements as have the last, but as I have worked and studied with the X-rays in the past, so I shall continue in the future, and I feel confident that the time will not be lost.

In regard to the injurious effects of the rays, which have been noted in both the technical and the lay press, a few words are not out of place. Constant and continued exposure to the rays produces a considerable inflammation of the skin, accompanied with a falling out of the hair and nails, and occasionally with blistering and sloughing. My own hands have been so affected several times; but I have never had any unpleasant consequences befall the patients examined. Doubtless the cases so reported have resulted from a too long exposure.

Sections

MEDICINE.

In charge of SAM'L O. L. POTTER, M. D., M. R. C. P. L.,
Professor of Principles and Practice of Medicine and Clinical Medicine in the College of Physicians and Surgeons of San Francisco.

Bulbar Paralysis Without Apparent Lesion.—Professor Struempell reports the case of a girl, aged 21 years, who died after three months' illness with symptoms of bulbar paralysis. The onset was gradual; the patient had previously been perfectly healthy. The first symptom noticed was rapid fatigue in speaking and in moving the eyelids; later the muscles of the arms and legs, and then those of mastication and swallowing, showed the same tendency to speedy fatigue. There was distinct weakness of the facial muscles, of the tongue and lips, and of the muscles of the extremities, but no wasting, no sensory change, and no alteration of deep or superficial reflexes. Speech was curious, the first few words being always quite clear, the rest quite unintelligible; swallowing similarly soon became difficult after performing the act a few times, owing to fatigue of the muscles. The necropsy showed no lesion whatever; the brain and medulla were examined microscopically, but nothing abnormal could be found. Twenty similar cases have been observed, mostly in young and previously healthy persons. Heredity seems to play no part in the disease, for which no cause has been found.—(*Deutsch. Zeitschr. f. Nervenheilk.*)

Nature of Exophthalmic Goitre.—Dr. Martius discusses this subject from the clinical point of view. Moebius has come to the conclusion that the disease is a poisoning of the organism by the morbid action of the thyroid. To this Buschan has opposed his nervous theory, which he holds to afford a better explanation of the clinical phenomena of the affection. Martius considers that the large number of conflicting theories is due to the cardinal symptoms of the disease being regarded as the disease itself, which is in reality an affection more or less of every system and organ of the body. The theory which localises the lesion in the medulla oblongata is quite unsupported by pathological evidence, and the sympathetic theory at once breaks down by reason of its failure to explain the tremor, the disordered impulses originating, which certainly do not pass down from the cortex to the muscles along the sympathetic. It is too often forgotten that the peripheral nerves are not originators but only conductors of impulses. Experimental evidence, based upon section or stimulation of their fibres, is therefore valueless as an indication of the condition of the nerve cells, which is the all-important factor in disease. Occasionally one or other symptoms of exophthalmic goître may be produced by pressure on or disease of the sympathetic, but in the actual disease the chain and ganglia are invariably found to be healthy. Martius is therefore forced to the conclusion that the congeries of symptoms depends essentially on functional disturbance of the central nervous system. Pathologically, exophthalmic goitre is very sharply marked off on the one hand from nervous diseases having an anatomical basis, and on the other from functional affections such as hysteria and neurasthenia. It resembles much more closely in its symptomatology chronic intoxications such as mercurialism and alcoholism, and this resemblance is not diminished by the fact that Graves's disease often appears to take origin from a fright or some other psychical disturbance. The acute symptoms of alcoholism (delirium tremens) and of plumbism are often evoked by the action of apparently slight external causes upon systems already impregnated with the poisons, and the appearance of symptoms of exophthalmic goître may also date from similar causes in the course of chronic intoxication from the disturbed action of the thyroid gland. With this may also be compared the onset of uræmia in cases of granular contracted kidney. Martius therefore concludes that exophthalmic goître is a chronic poisoning of the whole nervous system, but that the evidence at present available is insufficient to settle the question as to whether the diseased thyroid gland produces the poison or inhibits its destruction.—(*Berliner Klinik.*)

Uræmic Aphasia.—Professor Rendu, in a clinical lecture, lately described a remarkable case of aphasia. The patient was suddenly attacked while apparently in good health, by an apoplectiform seizure accompanied by absolute coma, which latter however passed off in the course of twenty-four hours, leaving a right brachial monoplegia and well-marked aphasia, which was motor in character. This condition remained stationary for a fortnight, with more or less somnolence at intervals, at the end of which time he developed Cheyne-Stokes respiration. Albuminuria, which had previously been present, became worse, and many other symptoms of uræmia developed. After bleeding, etc., the patient recovered, and was discharged in two and a-half months' time without any aphasia or nerve lesion. The author believes that this case was simply a form of uræmic poisoning, the more particularly as the dyspnœa and other symptoms were not in accord with a gross cerebral lesion, and when the patient was recovering he was able to state that several days before his first seizure he had been troubled with headache, vertigo, transient dimness of vision, etc. The author believes that the absence of the usual consequences of vascular rupture or obstruction, such as rigidity, alteration of reflex action, etc., would justify the conclusion that there was no destructive lesion in the cortex or other part of the brain, and he quotes other cases as bearing this out, some in which the aphasia was motor, in others it was rather agraphic or purely word blindness. The aphasia generally sets in suddenly, but as a rule is not the first symptom, being preceded by some convulsive seizure with more or less marked loss of consciousness, and the aphasia only manifests itself after a few days' interval, and in only one case was it known to be the initial symptom. The duration of the aphasia in ordinary cases is two or three days. One case of a fortnight's duration is recorded, and the author's case of over two months' duration is quite exceptional. The explanation which Rendu admits as most probable is that a local and circumscribed interstitial œdema may possibly suspend the cortical function without in any way causing destruction, thus accounting for the short duration of the symptoms, which disappear with the fluid. This, according to him, would account for the good results obtained by bleeding.—(*Journ. de Méd.*)

Clinical Demonstration of the Typhoid Bacillus.—Dr. G. Pollak notices how, owing to the innumerable microbes found in the stools, it becomes laborious to ascertain the presence of the typhoid bacillus. Many proposals for effecting this object have been of little value to the clinician. Lyonnet's colored reaction seemed at first sight to be a considerable advance, as it was simple. To ordinary bouillon decolorized with animal charcoal he added 1 per thousand of carbolic acid, 2 per cent. of milk sugar and a little congo red. In this medium it was thought that only the typhoid bacillus and the bacillus coli communis would grow. If the medium remained clear, neither micro-organism was present. If it became turbid and red the typhoid bacillus was present; if turbid and violet, the colon bacillus. Pollak has been unable to obtain satisfactory results with this test. Elsner's method is very valuable. To 1 kg. of potato in 1 litre of water ordinary gelatin is added, and then 2 5 to 3 ccm. of 1 in 10 normal soda solution for every gramme of gelatin used; 1 per cent. potassium iodide is also added just before use. The author found that the potassium iodide might be added some time previously, and yet the medium remain efficient. In twenty-four hours coarsely granular colonies of the colon bacillus, and in forty-eight the shining and finely granular colonies of the typhoid bacillus develop. The author has used this method in 20 cases, mostly doubtful, of typhoid fever, and in 51 stools, with very satisfactory results. He appends a table showing the results obtained, and gives short notes of the cases. He inoculates 3 ccm. of ordinary bouillon with a little of the stool, and then makes two plate subcultures. The bacillus fæcalis alcaligenes grows on this medium as well as the typhoid and colon bacillus. The author concludes that Elsner's method is suitable for clinical work. In doubtful cases it is always of value, but it must be remembered that the three above-named micro-organisms may be separated out. Thus the other tests for the typhoid bacillus must not be neglected, so as to prove that the micro-organism is the typhoid bacillus; the appearance of the plate cultures cannot be solely relied upon.—(*Centrabl. f. inn. Med.*)

Gouty Affections of the Heart.—Dr. Th. Schott discusses the prognosis and treatment of this condition. In pure and not advanced gouty affections of the heart the prognosis as regards life is favorable, but in severe cases, with anatomical changes, it is doubtful and mostly bad, but even here something can be done to prolong life. In predisposed individuals over-exertion, as well as too great inactivity, must be avoided. A mixed diet is best suited to these cases. Stimulants should be avoided; light Rhine wines are the least harmful. A sufficient exercise in the open air is necessary. The use of salicylates, antipyrin, antifebrin, for pains requires caution. The author has had unpleasant experiences with colchicum. Piperazin has not in the author's experience proved of much service. Lithium salts are best avoided owing to their irritating action on the alimentary canal. The various potassium salts, owing to their toxic action on the heart, should be very cautiously used. Opium should be given as little as possible. Digitalis and also strophanthus are to be preferred to all other cardiac tonics. The author then discusses the value of the mineral waters. Slightly alkaline waters are of greater service than the stronger so-called gout waters. Hydrotherapy can only be used in the shape of warm packs in the treatment of pain. General massage may be of service, especially when the patient is confined to bed owing to an attack of gout, etc. Gymnastic exercises can only be of use by increasing metabolism. As regards climate moderately high altitudes are better than low-lying places. Cold and especially damp climates must be avoided. As regards baths the author warns against trying to call forth the attack of gout by baths; he has only seen an unfavorable action exercised on the heart and kidneys by such measures. A considerable part of the success of health resorts lies in the withdrawing of patients from home troubles, and in their living a more rational life.—(*Berl. klin. Woch.*)

Statistics of Diphtheria Antitoxin.—Dr. Loddo has collected the various official statistics on this treatment in Europe, America, Australia and Japan. They include about 10,000 cases treated in 86 hospitals, with a mean mortality of 18 per cent. Fifty-three of these hospitals furnish comparative statistics of treatment without and with serum; 7,277 cases were treated with serum, giving a mean mortality of 20 per cent. as against a previous mortality of 44.3 per cent. In addition to the about 10,000 cases, Guérard has collected the accounts of 3,760 cases treated with serum in private practice; here the mortality was only 7.8 per cent. Adding these to others, there is a mortality of 15 per cent. on the 13,760 cases. The author then cites a series of figures which tend to show that serum-therapy is of little value, and even may be harmful. Of these latter, about 3,000 cases are collected, giving an average mortality of nearly 23.4 per cent.—(*Rif. Med.*)

THE *Los Angeles Herald* reports that Dr. John J. Sellwood, who has been conducting the National Medical and Surgical Institute, was arrested on two warrants alleging petty larceny and obtaining money under false pretences.

OBSTETRICS.

Under the charge of D. A. HODGHEAD, A. M., M. D., San Francisco.

The following has been culled from extracts in the *Journal of Obstetrics*, and the *Gynœcological and Obstetric Journal.*

Eclampsia.—Recent authorities on this subject agree and disagree as to the best treatment. Cotrel recommends careful watching of the pregnant woman, especially during the last half of pregnancy, and frequent urinary examinations. While milk is recommended for pregnant women at all times, it should be made the sole article of diet if prodromic symptoms of eclampsia appear. For an approaching attack he advises venesection, purgatives, diuretics, and chloral, never induction of abortion; during the attack, prevention of self-injury, and the above remedies with the addition of inhalations of chloroform; after the attack, milk diet, tonics, and rigid antiseptics after delivery. Gauthier advocates a similar treatment, with the addition of veratrum viride.

G. Inverardi reports two series of cases. In one there were sixteen cases with five deaths, in the other eleven cases with one death. He believes these different results to be due to the form of treatment which was based upon the theory that the infection is formed within the fetal organism and finds its way into the maternal circulation. When a patient has not yet reached term, and prodromal or actual symptoms of eclampsia are present, but not dangerously severe, he contents himself with obtaining profuse intestinal evacuations. Tincture of jalap is given in one-ounce doses as frequently as three times in twenty-four hours, and a milk diet is prescribed. If labor is imminent, and especially if the eclamptic symptoms are severe, the fetus is extracted as rapidly as possible. Labor is also brought on in cases where intestinal torpor prevents a response to the jalap treatment; the uterus once empty, the intestines must be evacuated, even if, by reason of coma, the remedy has to be administered by means of an esophageal tube. He is convinced that treatment addressed to the liver and intestines, or to the removal of the infected "fetal parasite," will give better results than narcotics, diuretics, or diaphoretics.

Knapp tells of twenty-two cases. In seventeen labor was terminated through operations; in the remaining five the eclampsia occurred during the puerperium. In 70 per cent of the cases the termination of labor exerted a favorable influence on the disease, and the author consequently advises early delivery.

Clark gives four cases in which he performed venesection. In three of these the convulsions were promptly terminated, and in the other no effect was noticed for twelve hours, when the patient gradually improved and a miscarriage was followed by recovery.

Hurt reports nine successful cases of eclampsia and three of clonic convulsions caused by reflex irritation. He believes that eclampsia is, in every case, the result of some influence directly or indirectly exerted upon the nervous system, causing a derangement of its functions; that such influence may be direct violence or mechanical pressure; that one or more of these influences may reach the nervous system by absorption and through the circulation; that by chemical changes wrought in the system toxic elements may be created and prove deleterious. Certain elements, harmless when in normal proportions, may exert a toxic influence when they exist in the body in abnormal quantities, urea being the compound most frequently so considered. Plethora increases susceptibility to an apoplectic condition and excessive irritability, and under these circumstances the crowding of the blood into the lungs and brain materially interferes with the nervous system. The emotional nature of some women helps to precipitate an eclamptic seizure, and a previous abnormal or pathological condition, as chronic malarial chills, not dependent on the puerperal state, may produce an attack.

Dr. Tweedy, of Dublin, considers the etiology of eclampsia as due to some toxin similar to that which gives rise to uræmic convulsions. Owing to the fact that the centers of nervous control are in a more unstable condition during pregnancy than at other times, smaller quantities of toxin will provoke convulsions than in the non-pregnant state. In the treatment of eclampsia he condemns chloroform, chloral, and the bromides as powerful cardiac depressants. Chloroform, by limiting the amount of oxygen, actually increases the convulsion in some cases. Pilocarpine he considers a dangerous heart sedative and attributes little advantage to profuse sweating as a vicarious function. The depletion of the blood by sweating only concentrates the toxins. He claims that œdema of the lungs in convulsions is largely due to fluids of the mouth passing down the

trachea, as the œsophagus is closed and the glottis open. This, he says, can be proved by a nose tube which passes into the larynx; the air will be forced out of the tube during the expiratory act, while in the œsophagus the air will come out during inspiration, due to the upward pressure of the diaphragm. Hence patients should not lie on their backs but on the side, and mouth-gags should not be used. He also condemns the induction of labor—premature or otherwise—as injurious. The method of treatment pursued by him for the past three years in the Rotunda Hospital has been the hypodermic injection of morphine in large doses, beginning with half a grain, to be followed by a quarter of a grain in two hours, and so on gradually until the symptoms are alleviated, or two grains have been given in twenty-four hours. If labor sets in, forceps may be applied after sufficient dilatation, but manual dilatation is unjustifiable. He discredits danger to the child from morphine, as in utero the child does not respire by the lungs. Bloodletting he favors, as a relief to the kidneys and a check to bronchial secretion. Nourishment should not be given during the attack. Hot water, stimulants, or medicine should be given by a nose tube, or better, by rectum. Purgatives are necessary. Digitalis, sparteine, and the nitrites are recommended as useful.

GENERAL DEMOGRAPHY AND CLIMATOLOGY.

Under the charge of P. C. REMONDINO, M. D.,
Member of the American Public Health Association, of the American Medical Association, of the State Board of Health of California, and of the Board of Health of the City of San Diego.

Progress of Hydrotherapeutics.—The renowned Father Kneipp will, in all probability, soon visit the United States at the earnest solicitation of the admirers of water as a therapeutic agent, and of water cures as an exclusive form of practice. New York will, for a time, be a second Woerishofen and as celebrated as the Bavarian home of the priestly doctor. It is proposed that a gratuitous course of instruction be given at the Cooper Institute for the benefit of the public, where the principles of Kneippinism shall be fully taught in connection with a knowledge of such simple herbs as he has long used in Woerishofen along with his water treatment. Father Kneipp enjoys a great reputation throughout continental Europe, not only among the laity but even amongst the profession, as it is reported that no less a personage than Prof. Koch, of Berlin,

has been numbered as one of his patients. The probable outcome of this visit of the medical priest will be the establishment of a large, free hydrotherapeutic establishment in New York and an immediate great impetus given to that form of medicine with a subsequent natural relegation of that practice to an undeserved neglect.

We are certainly a people hungry for fads, and with all our boasted practicability we are about as hysterical and emotional as the ancient Greeks; we soon run things first to undeserved extremes of praise, and secondly to undeserved neglect. Water is a most deservedly valuable therapeutic agent, and there is no drug or medical agent that can or ever will replace it in its peculiar spheres, but as an *exclusive* practice, it must, like all other exclusive forms of medical practices, be doomed to the varying up and downs of all fads.

Hygiene Table Ethics.—Whilst the many are extremely solicitous regarding the observance of social or ceremonial table etiquette, but few realize the full value of a stricter observance of a certain course of psychic ethics which are fully as important to the physical well being as the primary objects of feeding, or of the meal itself. Many years ago, when associating more or less with the wild Indians of the upper Mississippi, I was more than once struck with the peculiarity of an Indian's dining ethics. The usual domestic jars, bickerings, discords and misunderstandings,—incident to and inseparable from his polygamous existence, and arising from favoritism, jealousies, hurried aging of the older squaws and the arrival of the younger and handsomer wives to the family circle—never disturb the needed serenity of the meal hour. Longfellow and his ideal Indian to the contrary, the actual Indian is extremely prosaic and very far removed from a Hiawatha or Chateaubriand's Chactas. His courtships are the soul of prosaism and his domestic virtues and his personal utility about the tepee are as *nil.* When this lord of the lakes and forests sits down Turkish fashion to his generous meal, neither national business or domestic worries come in either as a preclude, entrée or dessert; his meal is not spiced with any cheerful conversation, but neither is its sepulchral monotony disturbed by the intrusion of anything unpleasant. The Indian is as taciturn as the grave, but he lacks the unpleasant severity as well as the solemnity of a tombstone that too often characterize some of our soulless meal hours. Cheerful company and an accompanying cheerful conversation will do much to prolong life and make that life a period of comfort. The meal hour should be one of cheer. That melancholy of countenance and demeanor which many affect to believe is something eminently acceptable to Deity, mixes but badly with apple dumpling, salt pork and stewed dried apples. While such a state of spirits and of countenance fairly well accompanied the austere and meagre diet of some of the early Christain fathers, and in no way interfered with the exercise of digestion required to assimilate the one fig per day and the little grass dessert that finished the one daily meal partaken of at sunset, they are hardly fit psychic accompaniments for the full physiological functions of digestion required for either the laboring, business or professional man, who takes three daily meals and who indulges in a greater variety of food and in undigestible messes. The same solemnity of countenance and lugubriousness of spirits that will evolve good blood in more humid atmosphered Scotland out of oatmeal and a fish diet, will only predispose one to cancer, dyspepsia and consumption when indulged in in the drier and more neurotic American climates. Religion as a social factor and as a factor in table ethics bearing on the functions of digestion should be studied from the point of view so sensibly taken by Professor Thoburn, of Stanford University. It would make us more philosophical, philanthropical and better, as well as less cynical, dyspeptic, morose and consumptive.

A Case of Canine Longevity.—Some time ago I related a case of feline longevity occurring in Paris. The said cat was an aristocratic tabby, residing in the old hotel Ramboulliete, and was most certainly a wonder, as, with the exception of its lost teeth, it still retained all the attributes of its prime, and that, into a very remarkable old age for a cat. Nothing in the line of longevity occurring in the fostering climates of Southern California is in the least astonishing. Given the stable social conditions found in provincial France, the future inhabitant of this favored region should pass his four scores of years in the possession of all his faculties. Past-centenarianism will then be a very common realization.

Some days ago I was much impressed by the lively gambols of a coal-black King Charles spaniel, who frolicked about and danced on his hind legs with all the playfulness of youthful dogdom. His eyes were bright and active, and his coat of so glossy a black, and he was so frolicksome, that I took him for a year old. To my surprise, Mr. Burnham, his master, then temporarily sojourning at National City, informed me that he had already passed his twentieth year. The peculiar stateliness and gravity of motion born of infirmity and old age, with that peculiar look of wisdom and calm deliberation that accompany decaying perceptions and dulling of the sensations of sight and of hearing, so noticeable in dogs past the age of ten, were most remarkably absent in this little royal doggy that has already passed its full score of years. On the contrary he was fully alert, and in the most happy possession of all his senses. Flourens gives the average life of a dog as being between ten and twelve years, although in extreme cases, some have lived to the age of 20, 23 and 24 years, and E. Ray Lankaster mentions that a friend once possessed a dog that had reached its 34th year—actually trebled the doggy average just as old man Parr had done in regard to his fellow man. Little Fido, the King Charles spaniel above mentioned, surpasses in activity and in the possession of physical comfort any dog that in our observation had passed his fifteenth year. At the latter age, eye affections and rheumatism generally make a longer existence a misery rather than a thing of joy.

Longevity offers many incomprehensible conditions. Just why the silly goose, with its labored and ungainly waddle, and with its dim understanding and evident utter absence of thought or reason, should ten times outlive the more joyful and intelligent average existence of a dog, four times that of the vigorous horse, and far outlive man, himself, who certainly can discount it in his enjoyment uf life, is beyond our comprehension.

Water Supply, Filtration and Typhoid Fever.—In 1895 Pittsburg had 77 deaths from typhoid fever to the 100,000 of population, Cincinnati had 36, and Louisville had 77—an equal number with Pittsburg. These three cities take their waters from the Ohio river or its tributaries, which, before reaching Louisville, receives the sewage and surface drainage of an area of territory that represents a population of over two million of people. New York, Brooklyn, and Boston, depending upon impounded waters gathered in large reservoirs, only average about 20 deaths from typhoid fever to the 100,000 of population. Munich and Vienna, where the water comes from high mountain sources, only average 7 deaths from typhoid fever to the 100,000 of population. Hamburg, whose water supply proved such a deadly vehicle for the cholera some years ago, then had a typhoid fever mortality of 28 per 100,000 inhabitants, a mortality which has since been reduced to 6 by the process of purifying the water by filtration.

London possessed a typhoid mortality of 90 per 100,000 of population for the decade ending with 1870. The introduction of sand filtration in the London water works, reduced that high rate to 24 by 1880, and to 19 by 1890, and for the four years ending with 1894 the rate was only 15. Dr. Frankland in commenting upon the improvement made upon the Thames water by sand filtration, remarks that a single drop of the unfiltered Thames water at times contained nearly 3,000 separate living organisms, but after filtration only two or three would be found, and sometimes the filtered water was absolutely sterile.

In Chicago, the removal of the intake crib some two miles further in the lake, reduced the typhoid fever death rate from 104 to the 100,000 of population in 1892, to 42 and 31 in the years 1893 and 1894. Mr. Hazen, late chemist of the Massachusetts State Board of Health, states that strict government supervision of water supplies in Germany has well nigh extinguished typhoid fever from the mortality tables of that country.

The above items are culled from an interesting article on City Water Supply and Filtration, by Dr. W. P. White, in the *American Practitioner and News.* The deductions speak for themselves, and should recommend a more careful consideration of the subject of how to suppress typhoid fever in the nation. The German manner of dealing with this subject is the most practical and effective in existence, and would suggest the advisability of placing water supplies under the supervision of a strictly non-political management. It would also suggest the advisability of a more uniform national system of hygiene in these regards.

Pathological Conditions as Moulds of Fashion.—The vagaries of fashion's fads are nowhere better exhibited in all their silliness than in those fads that are now and then born from physical defects or infirmities. A royal pregnancy once gave origin to the most ridiculous dress that ever encased lovely women, but one, nevertheless, in which well and perfectly formed women did not in the least hesitate to hide their statuesque lines of beauty and make themselves look horrible. Later on, a goître in a prince—also a Prince of Wales—started the fashion of high and voluminous neck cloths. From the *London Daily News*, we now learn, that the "high hand shake"—of late so affected by some faddy Americans, under the impression that it was the correct thing in high British society—originated with the Prince of Wales, who, owing to a painful boil in the axilla, could not well shake hands otherwise, whilst his friends had, for the time being, to accommodate their hand-shaking gesticulations to the same elevation. Anglomaniac and the simian characteristics, which humanity enjoys in common with our quadrumanous relatives, that affect our so termed high social life, quickly seized upon the new fad and imported it to America. It will surprise our society people to learn from the *News*, however, that in England the fad is "popular with third-rate smart people who know no better."

TRANSLATIONS FROM FRENCH AND SPANISH MEDICAL LITERATURE.

By W. L. ADAMS, M. D., Palo Alto, Cal.

The Expense to the State of a Family of Drunkards.—This is a problem in economics that is not lacking in interest at a moment when the question of alcoholism is being everywhere actively discussed, both from the scientific and the legal point of view, especially since a fiscal argument is of such weight before legislative assemblies. Professor Pellmann, of Bonn, has given the solution of the problem in the curious—appallingly curious—results of his investigations given below, which we take from *La Medecine Moderne.*

At the commencement of this century a woman died, a drunkard. Up to the present day her posterity has amounted numerically to 834 individuals. The existence of 709 of these has been traced and followed up, with the following results: 106 were of illegitimate birth, 162 were beggars, 64 lived at the public expense in poorhouses, houses of refuge, etc., 181 of the female descendants became prostitutes, 83 were condemned for different serious offenses against the law, 7 of which condemnations were for murder.

In seventy-five years this family, worse even than Zola's family of Rougon-Macquart, has cost the German Government in charitable assistance, cost of maintenance in prisons, damages, etc., the sum total of 6,250,000 francs !

Meningismus.—Meningismus has been recently the subject of a large number of communications to different scientific societies. The thesis of Dr. Noblet concerning this form of meningeal trouble is of especial interest. The name of meningismus was given by M. Dupré to those frequent cases in which meningeal symptoms exist without meningitis. All these cases have as primary cause a more or less marked neurotic inheritance; their secondary causes may be of reflex origin, or due to infection or to poisoning (toxæmia). Dr. Noblet describes in his work the following clinical forms of meningismus:

1. That due to *worms in the intestinal canal.* This is one of the most frequent forms. In children affected with tæniæ or lumbricoides, we often observe ringing in the ears, dilatation of pupils, convulsions. In these cases a dry cough often leads us to suspect incipient tuberculosis, especially as the child has lost weight, perhaps, for some time previously, and has complained of shortness of breath. Vomiting is common, but, unlike what occurs in true meningitis, the intelligence is rarely lost. One observer, M. Lebon, has seen, within the past eight years, thirty-five cases that were diagnosed as meningitis, of which twenty-nine were apparently due to worms; all recovered.

2. A certain number of reported cases have been collected in which meningismus complicated *dentition.* In certain children dentition may, in fact, be accompanied by a group of symptoms sufficiently alarming to gravely preoccupy the physician in charge of the case. Rillet and Barthez confess to having made several errors of diagnosis, mistaking a difficult dentition for meningitis, and *vice versa.* The child may have vomiting, constipation, alternate flushing and pallor of the face, irritability of character, sleep interrupted by startings or brusque awakening, and the cerebral cry.

3. In *pneumonia* meningismus sometimes is so marked that at the outset the disease in the thorax may pass unnoticed. But the attack is sudden, the temperature is high and steady, the pulse corresponds to the elevation of the temperature.

4. *Typhoid* meningismus comes on suddenly after a period of gastro-intestinal prodromata. The signs of enteric fever may be unperceived beneath the apparently well marked symptoms

of meningitis. We may have generalized hyperæsthesia, sometimes convulsions, contractions, giving rise to rigidity of the cervical muscles as in true meningitis.

5. Meningismus due to la grippe has been frequently observed within the past few years. In this form also the attack is sudden. Intense cephalalgia, accompanied sometimes by delirium—photophobia and vomiting, a general hyperæsthesia, soon followed by a marked period of prostration,—such is the meningismus of la grippe.

6. Cases due to *malaria* have been reported, one especially interesting by M. Jules Simon. In his case a child living in Paris was attacked by a pseudo-meningitis that yielded promptly to quinine; thus showing that in those quarters of large cities where extensive public improvements are being carried on, even in cities not usually accounted malarial, not only the common mild manifestations of impaludism may be observed, but also the severer types of the disease.

7. In addition to the above forms, meningismus due to *rheumatism*, to *uremia*, to different forms of *toxemia*, have been observed. Lastly, *hysterical meningismus* has been often noted, in fact it is perhaps the most frequent form. M. Noblet insists especially upon one class of these latter cases—the so-called *meningismo de repeticion*, which simulates relapsing meningitis, and does sometimes result in true meningitis. It is in view of this form that the prognosis of meningismus, nearly always favorable, must admit of reserves. For it betrays an abnormal vulnerability of the cortical area and indicates the possibility of an ulterior meningitis. Therefore it is a menace for the future, especially in children. A minute analysis of the antecedents of subjects attacked by meningitis, particularly the tubercular variety, shows the frequency of meningismus in some one of its forms in the past history of the patients.

Certain children in whom we find the hereditary predisposition to these affections, if exposed to the sudden influence of cold, for example, as during a walk in winter, may present symptoms of cutaneous and sensorial hyperæsthesia, agitation, insomnia, digestive disturbances, perhaps inequality or dilatation of pupils, all of which symptoms may pass off in a few days. After a certain time the same or some other trifling cause, such as an error in hygiene, may produce similar symptoms; and this state of affairs may be reproduced several times. In the presence of such hyperexcitability of nervous centers the physician rightly fears for the future of his case, and by a severe prophylaxis—*i. e.*, by strict supervision over the physical, mental and moral education of the child, endeavors to prevent grave troubles later on.—*Anales del Departaménto Nacional de Higiene*, Buenos Aires, July 8, 1896.

Obituary.

Dr Cleveland, of Oroville, an old and respected resident of this State, died very suddenly October 4th. He was born in Canada over 60 years ago. He received his education at Dartmouth College, graduating in 1868. At the time of his death he was physician to the County Hospital. He was one of the organizers of the Northern District Medical Society.

Dr. W. W. Ross, a well known physician of Los Angeles, died last month at the age of 66 years. He was a native of Maine, was educated at Phillips' Academy, Exeter, Mass., and at Bowdoin College, Brunswick, Maine. He graduated in medicine from the Medical Department of the University, City of New York, in 1858. He came to California in 1859 where he has since resided. At one time he was chief surgeon of the Southern California Railway.

Dr. E. G. Frisbie has removed to 734 Sutter street, corner of Jones.

And now we are told that it is dangerous to drink soda from the soda fountain, as it is claimed to be a world beater as a breeding place for microbes. Ice cream has also been tabooed as dangerous. Now that the soda-water fountain is menaced, what will the young man and his best girl do? Another alarmist comes along and tells us that we are all going blind because we drink too much and too strong coffee. You may take from us ice cream and soda water, (we never did think any too much of these luxuries), but spare, Oh! spare us our morning cup of coffee. If this sort of thing keeps up long enough, and our food is pronounced dangerous and unfit to eat or drink, the human race will die of starvation rather than disease or old age.

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Editorial.

EXPECTORATION IN CONSUMPTION.

It was very clearly shown a few years ago by certain careful observers that consumptives are liable to cause a health resort to become a dangerous place to visitors who were not already consumptive; and especially so to its permanent inhabitants. Certain localities on the Mediterranean coast to which consumptives have resorted for many years have become so infected that the native population have themselves become tuberculous. This was especially noticeable among laundresses who handled the garments of consumptives. This subject was brought up before the Sanitary Convention at Los Angeles and so thoroughly discussed that it has already commenced to bear fruit. It was pointed out at that time that the southern portion of California which, for the past ten years, has so freely welcomed consumptives to come and make this country their home, showed signs of the coming danger. We see by a late Los Angeles paper that the community has become aroused to the danger of indiscriminate mingling of consumptives with healthy persons. Carefully collected statistics show that the native population of Southern California is becoming infected through contact with consumptives from the East. It has been the custom for families to take one or more invalids, irrespective of their disease, into the family for from three to six months. The result should have been foreseen, tuberculosis has gradually invaded the whole of Southern California.

It must be borne in mind that the surest method for the spread of this disease arises from indiscriminate expectoration. On drying there are set free numerous bacteria which are blown about by the wind and become mixed with the dust and breathed into the lungs. Indiscriminate spitting is the curse of the land. No spot is too sacred for the habitual spitter. In churches, halls, waiting rooms, at depots and public conveyances, everywhere in fact, you hear the hawking and spitting followed by the scrape of the foot as the spitter hastens disintegration of the sputum by rubbing the mass in the dust.

The Board of Health of Los Angeles a year or two ago passed an ordinance against expectorating on the streets and in public places, but there never has been any real attempt to enforce it. Every physician knows, or ought to know, that consumption is a contagious disease. He is in a position to better enlighten the people on this question than any other class, and he should never feel that he is out of place when proclaiming the doctrine of contagiousness of consumption and the care necessary to prevent its spread. Physicians must never permit a well person, especially a child, either to sleep or spend many hours continuously in the same room with a consumptive. There is already a growing conviction among the laity that there is something in this besides talk and health boards at no very distant day will have the support of all right thinking persons in aiding the enforcement of strict sanitary laws.

In several cities ordinances against spitting in street cars have been vigorously enforced.

The San Francisco Health Board has authorized its attorneys to immediately prepare and have passed an ordinance for the prevention of expectoration on the sidewalks or in any conveyance.

MILK INSPECTION.

We note with pleasure that the Board of Health of San Mateo County has inaugurated a movement for the inspection of food products, especially dairy products. This will prove of great benefit to San Francisco for an enormous quantity of milk and other food stuffs are daily brought into the city from San Mateo County. This movement is in line with the remarks we made a month or two since that we could not have proper protection until every county in the State had a law ordering thorough and systematic inspection of its dairies. The so-called excellent sanitary condition of many dairies which inspectors so freely commend are so only by comparison with their generally filthy condition of past years. We still hold to the proposition that the examination of cows for tuberculosis and the application of the tuberculine test, though an important matter, is not the right way to begin the reform for pure milk. We believe that a rigid inspection of the cows' surroundings; the character and quality of food given; the arrangements for their shelter in stormy weather; the cleanliness of the premises; the cleanliness of the cows themselves; the care taken when milking to keep every atom of filth from the milk.pail, etc., are of such vital importance that all else is really overshadowed. Killing diseased cows does not guarantee that our milk will be pure, for the presence of tubercle-bacilli is not the worst thing that may enter into milk. Suppose your milk is pronounced free from this element of danger, it may contain, through adulteration with filthy water, far greater dangers, such as typhoid fever. How many milkers, think you, clean their hands, and carefully wash the cow's udder and teats before milking? Not many, we venture to assert. Yet through this very negligence comes the most prolific source of danger. The milk which issues from the teat sterilized may in a few minutes become infected from extraneous causes. Go and look at the premises where the cow is kept and carefully note the condition they are in, see if in the majority of cases there is not that absence of scrupulous cleanliness which should be present where such a necessary article of food is handled. Look at the cows, note if their hair is clean and smooth, or dirty and rough. If a filthy environment is injurious to man it must be equally so for animals. To have healthy cows, they must have healthy surroundings, pure air and plenty of it; clean wholesome food, regularly supplied; pure water to drink, and a clean place to lie down Protection from inclement weather, and grooming of the animal are great aids for warding off tuberculosis and all other diseases. The next point is strict cleanliness in handling the milk from the moment it leaves the cow to the time it is delivered to the consumers. As soon after milking as is possible remove it from danger of absorbing micro-organisms. Air borne spores are very numerous, especially about the cow-yard, and milk is exceptionally quick to become contaminated while warm. Carrying out these precautions will in time give us healthy cows and pure milk. For the present it is safer to sterilize all cow's milk before giving it to infants and young children. The financial loss to dairymen already due to want of confidence on the part of the public would have easily paid the cost of making every dairy in this State a clean and healthful spot.

UNCLEAN BAKERIES.

It may surprise many people to learn that the dirty bakery has been the rule rather than the exception. In all the large cities of the country health authorities have for years been fully informed of the fact that dirty bakeries are very numerous. Every sort of obstruction has been placed in the path of those who have tried to have them made clean and tidy. The Board of Health of San Francisco has taken up this subject and is making vigorous efforts to remedy the evil. Could the consumers of bread and pastry but see the places where the baking is done, and the manner in which it is done, they would be so disgusted that they would hardly care to eat any food from bakeries. The indifference of the public to their own health is something astonishing. There cannot be a single family living in this city that has not heard of Dockery and the work he and the Board of Health are doing to compel dairymen to give pure milk to their consumers. Yet in face of this fact every scoundrelly milk peddler who drives in town with poisoned milk has no difficulty in selling every drop to consumers. We can hardly expect that the average person will be any more concerned about the purity of the bread he eats than of the milk he or his children drink. Fortunately bakeries are easily located and inspectors can look them over without much trouble. In this matter the Board of Health will not be so handicapped as they have been in keeping out impure milk. Already a favorable change can be seen in the cleanliness of some of the bakeries. Every bakery which persists in keeping its place dirty should be reported. Fear of loss of custom through public exposure will soon bring such proprietors to terms. In the absence of any laws on the subject of bakeries, this method will be the only way to compel a reform. The next legislature will probably pass the necessary laws, in the meantime the Board can compel a thorough cleaning of these foul spots.

DISPOSAL OF GARBAGE.

There seems to be a conflict going on between the authorities of Oakland and Alameda concerning the deposit of Oakland's garbage within the city limits of Alameda. It goes without saying that the position of our Alameda friends is correct in making a strong protest. The fact is, there is but one way to dispose of garbage so that it will not be a nuisance to somebody, and that is by cremation. For the past ten years various boards of health in Oakland have urged upon the City Council to build a crematory. Plans and specifications have been time and again presented, but to no purpose. The medical fraternity of Oakland have endorsed this method for disposal of the city's garbage as the only solution to a vexatious problem. At a cost of $6,000 to $8,000 a crematory can be built which will take care of the garbage of the City of Oakland for many years to come.

The usual method for collecting garbage we condemn in toto. It should be done by the city, not by private parties. The result of the present method is that when a family does not pay regularly the rates for collection, it lies fermenting on their premises for days, or even weeks, to the great detriment of the neighborhood. Cleanliness of the back yard is of greater importance than cleaning the streets, as filthy backyards may be the starting point of an epidemic.

The sewer farm at Woodland appears to be more of a nuisance than a desirable method for getting rid of sewerage. Many complaints have been made of it as an unbearable nuisance and if not removed to some other locality, a suit for damages will be instituted by farmers living in its vicinity. From testimony given at a hearing, it was shown that the first year but little trouble was experienced, but each succeeding year it has grown worse and worse, and sickness arising from it has greatly increased.

There is an ordinance ordering the removal of garbage from San Francisco by lighters out to the heads, and there dumped in the ocean. This, like many another good ordinance, is inoperative because it is not pleasing to the scavengers. As they have a good sized vote which can be manipulated by bosses, no attempt is made to put the ordinance in force; the result is that the bulk of the garbage of San Francisco is dumped on land within a few blocks of the heart of the city. If the Board of Health wish to show that they possess real power let them enforce this ordinance until such time as the crematory may be erected.

VACCINATION IN BERKELEY.

We are pleased to note that Health Officer Rowell, of Berkeley, is making a vigorous attempt to carry out the provisions of the ordinance which says that every child *must* be vaccinated before attending school. A few people in Berkeley have bitterly opposed this ordinance, and they have thrown every possible obstacle in the way to prevent its enforcement. Many letters have been written to the *Berkeley Advocate* protesting against the ordinance as unnecessary and dangerous. A slight examination of these letters suffices to show that the writers are not sufficiently well informed on this question (either from a historical, scientific or practical standpoint) to intelligently discuss it pro or con. They invariably resort to the old stock arguments which have been refuted time and again during the past 75 or 100 years. Not a new fact has been advanced in recent years worthy of serious consideration. A certain class in every community, instead of bringing common sense and reason to bear upon this matter, become excited or even hysterical the moment the question of vaccination comes to the front. They also go into a spasm over the mere idea that some dreadful thing may happen to their children if they consent to have them vaccinated. The results of carefully collected data, covering a long term of years which conclusively demonstrate the efficacy of vaccination, will not produce a tenth of the effect upon the minds of such persons as will a sensational article in the daily press stating under scare head lines that some child after being vaccinated was poisoned and died, as is usually stated, "in great agony." It is not considered that where one death may possibly have followed vaccination, perhaps due to some person's carelessness, it has been the means of saving thousands upon thousands of lives during the past 100 years.

To-day the whole scientific world is practically a unit in placing Jenner, the immortal discoverer of vaccination, among the greatest benefactors of the human race. Next year in Moscow, Russia, is to be a great celebration in memory of this great man.

From all parts of the civilized world representative men will there be gathered together to make this one of the great events which will mark the closing years of the 19th Century. Before the unanimous verdict of the world's leading scientists in favor of vaccination as a preventive of the spread of smallpox, ignorant prejudice cannot prevail; at most it can have but a local significance. For the benefit of those whose fears have been aroused by the vaporing of persons who should know better, the Health Officer of Berkeley gave, in a recent number of the *Berkeley Advocate*, a brief but clear and comprehensive summary of this whole subject. Facts and figures were given which should satisfy any but the most prejudiced persons, that vaccination has been the prime factor in lessening epidemics of smallpox. He states that he proposes to carry out the provisions of the ordinance unless prevented by legal means.

GRAPE SEEDS AND APPENDICITIS.

There has arisen in many localities such an absurd idea that the seeds of grapes will produce appendicitis that the sale of grapes has been greatly restricted. As an article of food no fruit is equal to grapes and they can be eaten with absolute freedom by all persons. When converted into raisins they have a food value second to none among the dried fruits. The percentage of sugar is so great that as an article of diet they should find a place on every table. One is not obliged to swallow the seeds unless he so desires. Stewed with prunes or figs, raisins impart a delicate flavor which is greatly admired by those who have tried it. There are many ways to prepare raisins which, if generally known, would greatly increase the demand for them. Containing, as they do, upwards of 30 per cent of sugar, we have, bulk for bulk, a greater concentration of nutrition in raisins than in any other food. They are so cheap that every family can use them almost as freely as bread.

Announcement.

The Dental Department of the College of Physicians and Surgeons has issued a preliminary of its faculty and course of study. Lectures and clinics will be in the College Building, Howard street, and Howard Court.

For further information address the Dean of the Faculty, 603 Sutter street.

La Grippe is reported by several physicians to be quite prevalent in San Francisco.

Dr. Asa Clark has been elected to continue as Superintendent of the Asylum at Stockton.

The Centennial of Jenner's discovery of vaccination will be celebrated in Russia next year.

The 25th anniversary of the organization of St. Luke's Hospital was celebrated October 18th.

Accounts of injury from exposure to the X-rays are beginning to appear in the newspapers.

The Los Angeles Board of Health is making vigorous warfare upon the fakirs advertising to cure consumption.

The American Electro-Therapeutic Association held its sixth annual meeting in Boston, commencing Sept. 29th.

The Board of Health has notified hog ranchers that the ordinance establishing the hog limits will be vigorously enforced.

Dr. Curnow, of the San Jose Board of Health, states that the average duration of life in Santa Clara County is about 43 years.

The sixth annual meeting of the California Northern District Medical Society was held at Marysville, commencing October 13th.

Free clinics have been suspended at the City and County Hospital. Indigent sick will now have to look elsewhere for treatment.

The *Los Angeles Record* states that San Francisco has an ambitious citizen desirous of being a school director who spells street, "streate," and Sacramento, "Sarkremento."

The charge of perjury against Prof. A. A. Cunningham, ex-Secretary of the Veterinary Department of the State University was dismissed by Judge Joachimson, September 23d.

Health Officer Dr. A. S. Lovelace has been quite ill with an attack of inflammation of the liver. The vacancy caused by this sickness is being temporarily filled by Dr. J. M. Williamson.

The State Medical Society of Utah held its second annual meeting at Salt Lake City last month. The leading paper was by Major A. C. Girard, Surgeon at Fort Dodge, on the subject: "When and How Should the State Assume Sanitary Control in New Settlements?"

THE Health Board of San Francisco has been having great fun excoriating the late Grand Jury for, as it claims, exceeding its duties in criticizing the action of the Board for certain alleged misdeeds. The "now fortunately defunct Grand Jury" would have better been occupied in indicting one of its own members, says the Board, instead of meddling with matters concerning which it knows nothing.

IT IS claimed that fully one-half of the salt sold in California is not fit to be used. It has been found in some cases to be adulterated with Glauber salts. The pollution of salt from salt marshes, which receive sewage from cities and towns about the bay, is probably one of the sources of great danger to consumers. In New York State the Governor appoints a salt inspector whose duty it is to see that impure salt should not be sold.

A MEXICAN paper states that a private retreat for millionaire drunkards is to be located on a small island in the Ellire group, about 500 miles from Vanna Levu. For $5000, payable in advance, the managers undertake to receive a patient in London immediately before the sailing of the steamer for New Zealand; this sum to pay his traveling expenses, to keep him on the island for a year, and to give him a return ticket to London at the end of the year. A hotel has been planned upon a sumptuous scale and every conceivable means will be taken to make the patients' stay agreeable.

Coroner's Inquest.

Simon M. Finn was crushed by a Geary street car while he was oiling a sheave. The Coroner's jury brought in a verdict that "death was caused by a fracture of the right temporal bone; cause of death unknown."

College of Physicians and Surgeons of San Francisco—Special Announcement.

On account of necessary alterations in the College building, the Trustees announce that the course of instruction now in progress will be considered a preliminary course, and will terminate December 19th next; also, that the first regular course will begin on January 4th, 1897, and will continue for twenty-six weeks thereafter, concluding on July 3rd, 1897.

WINSLOW ANDERSON, M. D., Dean.
October 15, 1896. 603 Sutter St., San Francisco.

Proceedings of Societies.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

The regular meeting of the San Francisco County Medical Society was held September 8, 1896, the President, Dr. W. Fitch Cheney, occupying the chair. The minutes of the previous meeting were read by the Secretary, and on motion they were adopted.

Under the head of applications for membership the following names were proposed: Frank Donaldson, a graduate of the University of Maryland, 1883, and residing at 138 Haight street, by Drs. Philip King Brown and George H. Powers; and Mrs. M. A. Waterhouse-Grant, a graduate of the Cooper Medical College, 1893, and residing at 2216 Steiner street, by Drs. H. Gibbons, Jr., and W. F. Southard. These were referred to the proper Committee.

The report of the Committee on Admissions into the credentials of Dr. D. E. F. Easton were satisfactory, and upon ballot he was declared a duly elected member of the Society.

Dr. J. Henry Barbat read a paper, entitled

Cholecyst-Duodenostomy.

Obstructions to cystic, hepatic and common ducts are usually from some cause *within* the lumen and are usually biliary calculi; catarrhal conditions often recur and cause more or less obstruction. The case which I report to-night was one of this latter class. The cystic duct first became involved, and shortly before the operation the common duct also. The patient was 40 years of age and in good health till six years ago, when she had la grippe. At that time she developed evident signs of obstruction to biliary ducts—severe pain in right epigastric and hepatic region which radiated toward right side and back; also jaundice and increase of temperature for four or five days. Thereafter had frequent attacks till a visit to Carlsbad gave her rest therefrom for five months. They were then less frequent after her return to America. I was called first to attend her August 5th, 1896. Found her with her usual symptoms; the urine was loaded with bile, the passages were clay-colored and offensive. Liver enlarged and gall-bladder distended and reaching below umbilicus. She consented to an operation after five days.

Operated at Waldeck. Made incision from lower border of ribs over semilunar line of right side down this line as low as the umbilicus. Abdominal wall three inches thick. Broke up adhesions and aspirated a point of mucus and thick, brown gummy material. Female half of Murphy button was inserted, and held in place while male half was placed in the duodenum. Brought these together and line of junction of gall-bladder and duodenum was covered over with piece of omentum held in place by a fine catgut. It was difficult to close abdominal walls on account of tension of walls and bulk of contents. Could not suture peritoneum separately, so it was included with the muscles. Patient made a good recovery with little to mar the healing process. She passed the button on the 22nd, twelve days after operation. Bowels continued to move quite regularly after second day, but with a deficiency of bile constituents. At present writing patient attends to her household duties and has no pain.

In opening the discussion, **Dr. Dudley Tait** said: I think that the doctor acted wisely, considering the circumstances, though I think the report of the case as successful as to result, under a month's time, is hardly proper. As to the technique, I cannot see why the vertical incision was used, the curved incision seems to be a better one, much better for exploration purposes and the one I generally use. On operations over common duct the vertical may be employed. The history here points to a partial obstruction of the common duct and was certainly an indication for the exploring of that duct. Obstruction of the cystic duct should be relieved by anastomosis. The value of the Murphy button in this cannot be contested, but this can hardly be said of its use in other intestinal surgery where such objections could be raised against it as being liable to obstruction by fæcal matter, button being too small and a constriction resulting, etc.

Dr. Campbell Ford: Dr. Tait's words have about covered the ground. This operation furnishes the best location for the use of the Murphy button, and it will be used here longer than in any other place. All of the methods formerly used are being abandoned by the leading men such as Abbé, Morrin, Kocher and others. This union of hallow viscera presents a difficult mechanical problem. The first method was the interrupted stitch, but it was fatally slow. Every effort was made to make the continuous suture take its place. The methods employed were various ways of inserting the needle into the tissues. They failed because they violated the law of physics: that action and reaction are equal and in opposite directions. They were trying to lift themselves over the difficulty by their boot-straps. Force acts from the origin of a continuous suture towards its insertion and pulling lengthwise causes the line to gape and open instead of closing sideways. Any one of the sutures described by me before this Society some time ago fulfills the indication and with the accidental advantage that the first and last stitch may be united and expansion of the intestine overcome, and in connection I will say that I have received complimentary cards from Prof. Murphy, Kocher, Brokaw, and letters from Sir J. Macready, W. B. De Govuno and others in regard to the suture.

Dr. G. F. Shiels: I agree with Dr. Tait on nearly all he has said, except that I consider the fœcal plugging of a Murphy button rare; outside of that the dangers are few and the button is indeed good.

Dr. Davis: My experience in operation of these cases has been too limited, but I would like to be informed (though Dr. Tait has seemed to supersede my thoughts), why not anastomose the common duct with the intestine instead of the gall-bladder and intestine? The button is no doubt the thing in its particular line.

Dr. F. B. Carpenter: The gall-bladder often holds immense amounts of gall in these cases, and while so distended there is no outlet through the natural channels, and there exists an engorged condition of the m. m. of the cystic duct, recovery then would be difficult. The technique of the operation is unworthy of discussion—any man who attempted, in this case of 3 inches of tissue, a distended gall-bladder and other difficulties, to do otherwise, would have failed. The only point about the operation is the single one of infection from the thread about the button which may be infected from the visceral contents. There is no danger of opening the bladder or gut.

Dr. J. Henry Barbat: As regards Dr. Davis' question, I do not see any other method of anastomosis that excels this. There is some contraction where the gall-bladder is joined to the duodenum, and no food can pass into the bladder as some say. The operation as it is is quite difficult enough without fooling about with the common duct. It is impossible to use a suture in cholecystotomy. One method was to suture the gall bladder to the abdominal wall, this was quite impossible here, and in all such cases patients have attacks over and over again, and have to resort to the Murphy button after all. I have noticed nearly all of those who are prejudiced against them either never used them, or if they did, failed; so they lay the blame on the button. But it is no doubt the fault of the technique.

Dr. W. W. Kerr gave the notes of a case of

A Fatty Tumor Simulating Ascites.

and said: This case is of interest from a clinical standpoint. The patient, a man aged 53, came into the City and County Hospital on April 14, 1896, suffering greatly from dyspnœa. There was a tumor of the abdomen, ascites, emaciation, œdematous ankles, and all the signs usual in such cases. On examining the patient while lying on his back the usual signs of ascites were present, flanks dull, etc. Heart was all right, as were kidneys; only signs were of an obstructed portal circulation. The disease had been gradually coming on, patient said, for two and a-half years, but friends noticed his enlarged abdomen six or seven years, so they said. Patient was put on cathartic and diuretic medication, and improved very much. In the course of a few weeks, however, he began to get worse, swelling got larger and larger until we decided to tap. An interne in my presence tapped with no success, and thinking maybe that we had struck too low, we tapped again higher up with same results. A day or two afterwards he was referred to Dr. R. McLean. A lateral tapping gave no better results. After the first tapping I was of the opinion that we had a fatty tumor of the omentum, with a small amount of fluid, as was the case in a patient seen in consultation previous. After the third tapping I asked Dr. McLean to operate, and when the abdomen was opened an immense tumor presented, a portion was removed that the abdomen could be closed, and in ten days the patient died. The post-mortem was as follows, and explained the case clearly. It began in the pelvis, and at the time he entered the hospital there was ascites from pressure, the treatment then instituted acted all right, and the increasing secondary growth was due to the tumor. The tumor held the intestines up against the anterior wall giving us the tympanitic note.

Dr. Montgomery: I examined this in my laboratory. It is of interest pathologically. Quite a number of them arise retroperitonealy and go on to act as sarcoma in steady growth. This contained striated muscular fibres undoubtedly, for the specimen wasn't taken near a muscle where fat could fill in between, and was removed very carefully by the autopsy surgeon.

Dr. Davis: I am quite sure that I saw this case in my office about April 6th, whence he had come with some friends for an examination. I found the same state of affairs as Dr. Kerr did, and remember I concluded there was no cardiac dropsy, and could hardly believe there was renal dropsy, though I hadn't examined the urine. So I lay it to obstructed portal circulation, and I remember feeling that in spite of it all it was not all dropsy. I referred him to the hospital as he was without means.

Dr. Carpenter asked what was the cause of death, and how the trocar escaped wounding important structures.

Dr. Kerr: I do not know the cause of death; he died under the surgeon's hands, not mine, and as Dr. Carpenter is a surgeon he should know. How the trocar managed to escape intestines I can't tell, for they were uninjured. As to Dr. Davis, the fluctuation was most typical, the wave could be plainly seen; there was certainly a large ascites as the waistcoat went down fully 12 inches.

Dr. Davis: Do not understand me to say there was no ascites; there was, but poorly marked.

Dr. Kerr: I do not know this man's name now, he was not exactly as Dr. Davis' case; however, it might be the same man.

Dr. Kreutzmann exhibited a specimen of a section of the uterus removed at post-mortem about two years after an anterior ventral fixation performed by him. The specimen showed the adhesions of abdominal wall and uterus, and even the silk remained in situ. The uterus had remained in good position all the time since. A piece of omentum was adherent to the abdominal wall and uterus, which was in good condition, as was also the pelvic peritoneum. The case was of interest to me in that I had never seen such a case after operation, either in a secondary operation or in post-mortem. I have never confined women so operated on, though they have become pregnant. pregnancy is to occur the fixation should be light so that at the time of labor it would rupture. Observations lead to two main points: 1st, use no material for suture that is not absorbable; 2d, endeavor to get a fibrous union.

Dr. Barbat: Howard Kelly advised suturing the peritoneum, the pedicle would elongate two or three inches. Personally I object to the operation, especially in pregnancy, it pulls uterus up out of position. I have thought to put silkworm gut through the uterus and skin, leave it 10 days and then remove.

Dr. Kreutzmann: I have seen Kelly do this peritoneal operation and he abandoned it. The methods are innumerable. Dr. Barbat says that the uterus is out of its natural position; he is right, but when we try to relieve our patients we can't make a physiological specimen of them. The object of fixation is to prevent reformation of adhesions. I object to doing this on a movable uterus.

Dr. Carpenter: The uterus can be held in position by chromacized gut long enough for adhesions to form. Any permanent suture condemns itself. I can imagine any suture would cut through the tissue of the womb and might not cause a miscarriage.

Dr. Montgomery exhibited a radiograph or skiagraph of the neck of a young girl who suffers from a paralysis of the lower part of the body, indicating a lesion about the fifth or sixth cervical vertebra. In the photograph it looks much as if a kyphosis existed in that region.

In the discussion **Dr. E. E. Kelley** asked position of patient when radiograph was taken.

Dr. Montgomery: Patient was lying on the side. As to the patient, she was on a moving handcar when one of the handles struck her upon the head; the blow did not stun her. If the blow had been upon the neck we couldn't count the vertebræ so easily. She had pain only at first at the point of the blow. She can move her head to one side or the other, but that's all.

Dr. Shiels: There may be a spring and a partial kyphos which lasts the balance of the patient's life.

Dr. Sherman: The spinous processes here in this girl are more prominent than is usual, they could not be moved. There was no scaliosis, they were in perfect line. The lesion as far as the spine goes shows a crush of the body of the fifth cervical vertebra. The blow may have violently flexed her head.

Dr. Leo Newmark: This is one of those sad accidents that sometimes occur. I have been interviewed on the streets by numerous doctors since my connection with the case; one says try extension on her, operate on process, etc. No matter what the condition of the spine itself is, there is no doubt but that the cord itself is severely injured. Many think that when a vertebra is crushed this pressure is the cause of the paralysis, and that if it was relieved patient would be well. Now, the trouble is that the injury to cord is done at the moment of injury and no power can regenerate that cord. Thousands of lamenectomies are done and surgeons say it is no good, but even though 1 in 2,000 should succeed, should we give our patient that chance? The prognosis in this case is bad though there is one good symptom present, that of tactile sensibility.

Dr. Montgomery: The radiograph gives indications of a kyphos. The violent throwing of the head might break the ligaments or intervertebral cartilage, but as Dr. Newmark says the cord was injured at the time. The presence of touch is good and lately she has felt pain over her right heel, which was hurt at the time of the accident. She thinks she can now distinguish heat.

Dr. Kenyon: As to Dr. Newmark's remarks, I think sometimes that extension may do good, the same as in hip disease. I can recall a case at the hospital so treated. My theory was pressure from effusion, which rest and extension did well for.

Dr. Sherman: The symptoms were paralysis below the point of injury from almost the instant of the blow.

Under new business, the Secretary read a communication from the Citizens' New Charter Association asking that the Society send two delegates to confer with them upon it.

Dr. Kuhlman moved that the communication be laid on the table indefinitely.

Dr. Ford: Second this motion.

Dr. Kenyon: If the Charter is objectionable to our Society let us appoint a committee as asked, and let them so state our objections if any be found. Their object is to see how we stand on the Charter and we should have delegated there.

Dr. Kuhlman: Such letters have been put before two dozen dozen societies to rope them into the New Charter fold.

Dr. Wadsworth: Move that the Chair appoint a committee.

The President appointed as such delegates Drs. Kenyon and Wadsworth.

No further business, the Society adjourned.

A. P. Woodward,
Recording Secretary.

Resolutions Against the Medical Contract System.

We have been requested by Dr. Kuhlman to print the following resolutions:

To the Officers and Members of the San Francisco County Medical Society:

WHEREAS, Certain incorporated bodies and certain so-called fraternal, charitable and benevolent societies have within this city and county in pursuance of certain clauses inserted in their laws entered into "contracts" with certain medical men, members of this Society, whereby medical and surgical services are rendered by them to the members of said bodies regardless of the financial conditions of said members, and also regardless of the charges specified in the "Fee Bill" adopted by this Society—and whereas, the State Medical Society and the several County Medical Societies throughout this State have adopted resolutions condemning said medical contract systems:

Therefore, it is hereby RESOLVED that it is the sense of this Society that said medical contract systems are pernicious for the following reasons:

1. They operate to isolate and remove from general competition about 75 per cent of the sick in this city and county.

2. They operate to concentrate fully 75 per cent of the sick in this city and county in the hands of about one-tenth of the members of the medical profession.

3. They operate to enable unscrupulous, undignified and unqualified medical men to exist as such contrary to the laws of the "survival of the fittest" and the best interests of humanity.

4. They operate to pauperize the scrupulous, dignified and qualified members of our honorable profession whose appreciation of their "calling" is such that they will not stoop to such nefarious practices.

5 They operate as pauperizing agents upon the masses by lulling them into years of false security during which they neglect to provide by proper "economic methods" for the legitimate expenses of competent medical services and honest medicines during serious illness requiring "skill" not possessed by the average "contract doctor."

6. They operate to cause substitution of drugs and other dishonest "prescription practices" on the part of physician and pharmacist, as neither can do justice to himself or the sick under "contracts" that limit the price of prescriptions of from 15 to 25 cents each.

7. They operate to prevent "scientific medical investigation," as no "scientific physician" can afford to spend the time necessary for a proper investigation of a case where he is limited by "contract" to a few cents per visit.

8. They operate to deprive the sick of proper and timely "medical consultation" ofttimes disastrous to the life of the patient and for the following reasons:

(*a*) The contract makes no provisions for this most valuable "aid" to the attending physician and patient.

(*b*) The patient would not pay a "consultation fee" when his contract calls for necessary medical attendance and medicines during illness—and the society would regard such procedure as an admission of incompetency.

(*c*) A contract doctor would rather allow his patient to die than to call in a "consulting physician" at his own expense, besides running the risk of being exposed to the rest of the fraternity as a contract doctor.

9. They operate to lower the scientific standard of medical men, as the only qualifications required of a contract doctor are political cunning and unscrupulousness.

10. They operate to lower the physical and moral standard of medical men, as "contract doctors" must quite often participate in "nightly orgies" with members of the "ring" upon whose influence their "jobs" depend, where food, drink, and language incompatible with the physical and mental healthfulness of brain-workers are freely dispensed.

11. They operate to destroy that peculiar inherent scientific and ethical harmony upon the lines of which alone "scientific medical men" can act in unison to carry out the great objects of their profession—namely, the prevention, amelioration and cure of disease.

12. They constitute a premeditated, malicious conspiracy on the part of unworthy, ambitious, and avaricious medical men against the best interests of the profession and humanity in general.

Therefore be it further Resolved:

1. That no person shall be eligible to membership in this Society, who shall after the adoption of these resolutions, enter into any contract, written, verbal, expressed or implied, with any individual, corporation, society or organization, to furnish medical and surgical services at a rate below the charges specified in the "fee bill" adopted by this Society.

2. That any member of this Society who shall, after the adoption of these resolutions, enter into any "contract," written, verbal, expressed or implied, with any individual, corporation, society or organization, to furnish medical or surgical services at a rate below the charges specified in the fee bill adopted by this Society, shall be expelled from membership.

3. That nothing contained in these resolutions shall be so construed as to apply to any contract (of not more than one year's duration) entered into prior to the adoption of these resolutions, or to any salaried municipal medical officer, or resident physician connected with a hospital not supported by an assessed membership.

4. These resolutions shall go into effect immediately upon their adoption.

Respectfully submitted this 13th day of October, 1896.

CHAS. G. KUHLMAN, M. D.

Contract Medical Service.

WHEREAS, Rendering professional services at a stipulated fee per capita, per annum, is derogatory to the diginity of the medical profession, we, the undersigned, physicians and surgeons of Berkeley, California, enter into the following agreement:

First—We mutually, jointly, and individually pledge our word of honor not to enter into any contract or agreement, or renew any existing contracts or agreements, either written, verbal or implied, to render medical or surgical services to any lodge, society, association or organization.

Second—We will not render medical or surgical service to the members of the above-mentioned bodies for less compensation than we charge the general public for similar services. This agreement shall not be construed to affect existing contracts between physicians and surgeons, and the above-mentioned bodies.

Third—We agree to adopt the accompanying fee table of the King County Medical Society of Seattle, Washington, and to abide by its provisions.

J. S. EASTMAN, M. D., F. H. PAYNE, M. D., HUBERT N. ROWELL, M. D., ELLEN DEAN MOORE, M. D., FRANK R. WOOLSEY, M. D., G. B. HOAGLAND, M. D., C. P. HENRY, M. D., H. N. MINER, M. D., MARY B. RITTER, M. D., W. E. J. WOODS, M. D., G. A. WEED, M. D., A. M. BENNETT NASH, M. D.

Health Reports.

REPORT OF THE STATE BOARD OF HEALTH.

By J. R. LAINE, M. D., Secretary State Board of Health.

DEATHS.—Reports from forty-six cities, towns, villages and sanitary districts, aggregating a population of seven hundred and twenty-eight thousand seven hundred and fourteen, show a mortality of eight hundred and sixty-five—a death-rate of 1.18 per thousand for September, 1896, or 14.16 per thousand per annum.

There were one hundred and fifty-six deaths from consumption, forty-three from pneumonia, twenty-two from bronchitis, three from congestion of the lungs, nine from diarrhœa, twenty-four from cholera infantum, sixty-five from other diseases of the stomach and bowels, three from diphtheria, one from croup, one from measles, three from whooping-cough, twenty-one from typhoid fever, seven from malarial fevers, twelve from cerebro-spinal fever, thirty-three from cancer, one from erysipelas, eighty-nine from diseases of the heart, three from alcoholsm, and three hundred and sixty-nine from all other causes, one of which was from la grippe.

PREVAILING DISEASES.—Reports from twenty-three localities outside of the larger cities and towns, give six cases of pneumonia, eighty-six of bronchitis, nine of pleurisy, ten of congestion of the lungs, one hundred and seven of diarrhœa, thirty-one of dysentery, fourteen of cholera morbus, eleven of cholera infantum, one of diphtheria, five of croup, two of scarlatina, five of measles, twenty-six of whooping-cough, sixty-six of la grippe, thirty of typhoid fever, one hundred and forty-three of malarial fevers, four of cerebro-spinal fever, seven of erysipelas, thirty-nine of rheumatism, forty-six of neuralgia, thirty-seven of tonsilitis, and twenty-six of pharyngitis.

Whooping cough was reported epidemic at Downey, Pleasanton and San Mateo.

Measles was reported epidemic at Watsonville.

DR. A. LILIENCRANTZ has removed to 855 Market street (Parrott Building), room 614, sixth floor.

MISS GRACE PLAYTER and Dr. Murrey L. Johnson, of Oakland, were married October 15th.

THE *Charlotte Medical Journal*, of Charlotte, N. C., is one of the brightest, most entertaining and newsiest of our exchanges. Its editors, Drs. E. C. Register and J. C. Montgomery, are men of energy and push, having that essential quality to command success which we in the far West speak of as the ability to rustle. This journal has a circulation equalled by but few American medical journals. Among its contributors we find many names whom we recognize as leaders in the medical profession of the South.

Communication.

New York, October 14, 1896.

Sir:—I have just read an item from the *British Medical Journal* concerning an outbreak of beriberi in a recent immigration of Japanese laborers to the sugar plantations of the Fiji Islands. Will you permit me to observe that the charcoal habit of the Japanese is carried by them unaltered to the Hawaiian Islands, as well as to the Fiji Islands. Among the 25,000 Japanese in Hawaii, beriberi exists as well as among the Fiji Japanese. I have always maintained, in numerous articles, supported first by experience in Japan, and also by my examination of outbreaks of beriberi in ships, that beriberi is due to carbonic acid poisoning. These laborers, sitting around their Japanese stoves, smoking and drinking their everlasting charcoal-heated tea in a damp atmosphere, were, in my opinion, undoubtedly poisoned by the fumes of charcoal. In Tokio, it is the lower-lying wards which have the most cases of beriberi. In ships coming to New York loaded with thousands of tons of sugar, with hemp, graphite, among 75 negroes confined in a room 20 feet square, five feet high, for 11 days, beriberi broke out. "Burnt" coffee cargoes from Java (coffee shipped green is expected to ripen on the long voyage) also caused berberi. If I could enumerate the outbreaks which I have investigated, you would see that in every instance there was an elimination of carbonic gas. The effect of carbonic poison on human blood is a deficiency of hemoglobine, *no* deficiency of red-blood corpuscles, a paralysis of peripheral nerves from which results œdema, and the respiratory and cardiac complications through the pneumogastric filaments. That a germ is not the cause of beriberi is clearly proved by Professor Miura's case of beriberi on Fusiyama, 12,000 feet above sea level, in December. (*Sei-i-kwai Med. Journal*, June, 1896.) If the germ developed on top of that mountain in that climate, why does it not develop at sea level? Beriberi ceases naturally in Japan as soon as the cold northwest wind begins to blow. It exists there only in the hot rainy season (June, July and August), when the atmosphere holds down the gases from the charcoal stoves.

Albert S Ashmead, M. D.,
Late Tokio Hospital, Japan.

Literary Department.

Under the charge of W. F. McNUTT, M.D., M.R.C.S., Edin., etc.
Professor Principles and Practice of Medicine in the Medical Department
University of California, etc.

A TEXT-BOOK OF BACTERIOLOGY. By GEORGE M. STERNBERG, M.D., LL. D., Surgeon-General, U. S. A.; ex-President American Public Health Association; Honorary Member of the Epidemiological Society of London; of the Royal College of Medicine of Rio de Janeiro; of the Societe Francaise d'Hygine, etc. Illustrated by heliotype and chromo-lithographic plates and two hundred engravings. New York: William Wood & Co. For sale by the Book Department of the Emporium, Market St, San Francisco.

This volume is prepared especially for the general practitioner and medical student. It is in a measure by no means entirely an epitome from the author's great work issued in 1893. In this volume the author has omitted all the non-pathogenic bacteria as well as the bibliography that is to be found so elaborately detailed in his first large work. This book is in every sense a "text-book" of Bacteriology and one of the best extant. It is, as to paper, print and illustrations, highly satisfactory. It cannot help but add greatly to the author's reputation as a lucid, concise and exact teacher and will do much to encourage and facilitate the study of bacteria in our medical schools.

A MANUAL OF CLINICAL DIAGNOSIS BY MICROSCOPICAL AND CHEMICAL METHODS. For Students, Hospitals, Physicians and Practitioners. By CHAS. E. SIMON, M. D., late Assistant Resident Physician Johns-Hopkins Hospital, Baltimore. In one very handsome octavo volume of 504 pages, with 132 engravings and 10 full page colored plates. Cloth, $3.50. Lea Bros. & Co., Philadelphia and New York. 1896. For sale by the Book Department of the Emporium, Market St., San Francisco.

The author has produced a book that teaches facts which must be studied and understood by the physician who would make the practice of medicine a science. The modern up-to-date physician plainly sees the hand-writing on the wall, viz., *many of the diseases which we are called on to treat can only be diagnosed in the chemical and microscopical laboratory.* If the physician who has not had the advantages of a laboratory training in chemistry, physiology and bacteriology, will look this work over carefully he will appreciate the necessity of procuring the assistance of a young physician who has had the training and has the time to make laboratory examinations. In no other way can he fulfill his obligations to his patient, besides he must remember that the fittest must survive and he will be left behind in the struggle. The author very truly says "It is curious to note that, notwithstanding the great importance of clinic chemistry and microscopy, but little attention is paid to these subjects, either by hospital physicians or by those engaged in general practice. This lack of interest is referable primarily to the fact that systematic study of these branches has heretofore been greatly neglected, not only in American Medical Schools, but also in those of Europe." There is no medical school either in America or Europe where the science of medicine is taught so systematically and conscientiously as at Johns-Hopkins, of which the author is a worthy representative. We hope the book will have a large sale.

FUNCTIONAL DISORDERS OF THE NERVOUS SYSTEM IN WOMEN. By J. T. McGILLICUDDY, A. M., M. D., Consulting Physician to the Italian Hospital, New York; Surgeon-in-charge of the New York Mother's Home Maternity Hospital; Surgeon-in-charge of the Metropolitan Dispensary and Hospital for Women and Children; Fellow of the New York Academy of Medicine; Member of the American Medical Association; Member of the International Medical Congress, Berlin, 1891, etc. Illustrated by 45 wood engravings and two chromo-lithographic plates. New York: William Wood & Co. 1896. For sale by the Book Department of the Emporium, Market St., San Francisco.

A book on diseases of women which proposes treatment that is non-mutilative is quite unique in these surgical days. It will probably be looked upon with quite as much suspicion by our brethren of the scalpel as the earlier surgical works on diseases of women were by the great men of the profession. Nevertheless, the book will well repay a careful and thoughtful reading. It treats of many functional derangements to which women are subject and for which they too often receive neither the sympathy they deserve nor the appropriate treatment. In point of fact many of the women who are the subject of these disorders of which this work treats are turned over to the merciless quack, the divine healers, the Christian scientists, the little pill doctors who make most of their astonishing cures from among these patients. The book is well illustrated and well printed and ought to be carefully read by the general practitioner and the surgical practitioner.

MINOR SURGERY AND BANDAGING. By HENRY R. WHARTON, M. D., Demonstrator of Surgery in the University of Pennsylvania. New (3rd) edition. In one 12mo. volume of 594 pages, with 485 engravings, many being photographic. Cloth, $3.00. Philadelphia: Lea Brothers & Co. 1896. For sale by the Book Department of the Emporium, Market St., San Francisco.

When the third edition of a medical book is called for in about four years one takes it for granted that the profession found the first editions helpful. We may say, however, this edition is not a mere reprint but a thorough revision. The subject-matter is brought up to date, which makes this one of the very best manuals extant on Minor Surgery and Bandaging. Reference Hand-book of Surgery and Bandaging for Students and Busy Practitioners might be a more appropriate title. It is profusely and well illustrated and deserves its popularity.

A MANUAL OF VENEREAL DISEASES. By JAMES R. HAYDEN, Chief Venereal Clinic, College of Physicians and Surgeons, New York; Professor of Genito-Urinary and Venereal Diseases in the Medical Department of the University of Vermont, etc. In one 12mo. volume of 263 pages with 47 engravings. Cloth, $1.50. Lea Brothers & Co., publishers, Philadelphia and New York. 1896. For sale by the Book Department of the Emporium, Market street, San Francisco.

All students and most practitioners keep manuals at hand. Students probably rely too much upon them and practitioners might turn to them more frequently than they do with benefit to themselves and their patients. This little manual puts gonorrhœa, chancroids and syphilis with their complications and sequelæ concisely, clearly and authoritatively. The publishers have done their part of the volume most satisfactorily.

A MANUAL OF ANATOMY. By IRVING S. HAINES, Ph. B., M. D., Adjunct Professor and Demonstrator of Anatomy in the Medical Department of the New York University; Visiting Surgeon to the Harlem Hospital; Member of the Society of the Alumni of Bellevue Hospital; of the American Medical Association of Anatomists, etc. With 134 illustrations. Philadelphia: W. B. Saunders, 925 Walnut street. 1896. For sale by the Book Department of the Emporium, Market St., San Francisco.

We do not expect much that is new in anatomy. The individuality or the necessity for the appearance of a new work on the subject depends on special arrangement of the matter, the helpfulness to the student, of the illustrations and diagrams, good, clear print and excellent index and, of course, the text must be complete, understandable and exact. That this work possesses these features we are quite satisfied and heartily recommend it as a very desirable manual of anatomy.

THE MEDICAL MUSE, GRAVE AND GAY. A collection of rhymes up to date by the doctor, for the doctor and against the doctor. Collected and arranged by JOHN F. B. LILLARD. New York: E. I. Booth, 32 and 45 Gold street. 1896. For sale by the Book Department of the Emporium, Market St., San Francisco.

This is an excellent little book to slip into one's pocket when going to a case of confinement or a trip on the cars. Many of the squibs are amusing, which is more than can be said of much that is written for poetry; the poems are all strictly medical.

TWENTIETH CENTURY PRACTICE. An International Encyclopedia of Modern Medical Science. By Leading Authorities of Europe and America. Edited by THOMAS L. STEDMAN, M. D., New York City. In 20 volumes. Volume VIII. "Diseases of the Digestive Organs." New York: Wm. Wood and Company. 1896. For sale by the Book Department of the Emporium, Market St., San Francisco.

This volume eight makes seven volumes issued thus far. Volume seven, the publishers say, will be the next to appear. Eight writers contribute the contents of this volume, four of whom are Americans and four Germans. The volume is devoted to diseases of the digestive organs. The first article occupies 81 pages, and is on Diseases of the mouth, by Johann Mickeliez, M. D., Prof. of Surgery, University of Breslau, and Werner Kummel, M. D., Privatdocent, University of Breslau. An introduction on the Anatomy of the Mouth precedes the description of the diseases. Then follows Disturbances of Speech, Buccal Manifestations of System Poisoning, Injuries, Gonorrhœica Stomatitis, etc., with 27 bibliographical references. The writers have been very thorough and painstaking with this contribution. Following in its natural order the second article is on Diseases of the Œsophagus, by Reginald H. Fitz, M. D., Prof. Practice of Medicine, Harvard. We are well satisfied that the practitioner will find this chapter a most satisfactory one. The third chapter occupies 148 pages, and is on Diseases of the Stomach, by Max Einhorn, M. D., New York. Before taking up the Diseases of the Stomach he devotes about 65 pages to the Anatomy of the Stomach, the Physiology of Digestion, Methods of Examination, and Examinations of Functions (excretions) and Diet. This chapter is well abreast of the times, is quite profusely illustrated and ends with 177 bibliographical references. The fourth chapter is on Diseases of the Pancreas, by Hans Leo., M. D., Prof. of Internal Medicine, at the University of Bonne. While this article is rather concise it is nevertheless very clearly put. The fifth chapter is by B. F. Curtis, M. D., Surgeon to the Cancer Hospital, New York, and entitled Diseases of the Peritonæum. We find, however, in addition, the Embryology, Anatomy, Structure and Physiology of the Peritonæum, Appendicitis, Perforation of the Stomach and Intestines and Subphrenic Abscess, with four pages of references to the literature of the subject. The sixth is a well written and well illustrated article of 121 pages on the Animal Parasites and the Diseases Caused by Them, by J. Ch. Huben, M. D., Memmingen, Bavaria. The seventh and last article is by J. M. French, M. D., Medical College of Ohio, on the treatment of the Diseases caused by Animal Parasites. This volume, for illustrations, importance of subjects, and care and ability in the preparation of the subject matter, is quite equal to any of the preceding ones.

A MANUAL OF OBSTETRICS. By W. A. DORLAND, A. M., M. D., Assistant Demonstrator of Obstetrics, University of Pennsylvania; Instructor in Gynecology in the Philadelphia Polyclinic, one of the Consulting Obstetricians to the Southeastern Dispensary for Women; Fellow of the American Academy of Medicine. With 163 illustrations in the text, and six full page plates. Price. $2.00. Philadelphia: W. B. Saunders, 925 Walnut St. 1896. For sale by the Book Department of the Emporium, Market St., San Francisco.

This is a very convenient and excellent manual on obstetrics. The author is a practical obstetrician, as well as instructor in the University of Pennsylvania. Says the author in his preface: "In the preparation of this manual the primary object has been a systematic and rational presentation of the subject of obstetrics as recognized by the leading teachers of the day. As most conducive to this end, it has been deemed expedient to adopt a combined clinical, physiologic, and pathologic basis upon which to work." It will be seen that the endeavor of the author has been to give the student and busy practitioner the very latest views on this very important branch of medicine. It is only necessary to look the work over carefully to see that he has succeeded most admirably. The busy practitioner will appreciate more fully than the student the clear, concise, and up-to-date statement in regard to the classification of that obscure and dreaded condition, puerperal sepsis. The manual can safely be recommended to both student and busy physician.

REPORT OF STATE SUPERINTENDENT OF PUBLIC INSTRUCTION, Vol. I and II.

REPORT OF THE COMMISSIONER OF EDUCATION. 1893–94. Vol. I and II.

PENNSYLVANIA REPORT OF THE STATE BOARD OF HEALTH.

REPORT OF CALIFORNIA STATE BOARD OF HEALTH for 1896.

TEXAS FEVER IN CALIFORNIA. D. E. SOLOMON, Chief of Bureau, Sacramento.

DIPHTHERIA is somewhat prevalent in Fresno.

DR. C. D. DICKIE, of San Bernardino, broke his ankle while hunting.

DR. A. R. REED, of Pomona, was badly injured by a fall from his wheel.

DURING the past twelve months thirty-three suicides have occurred in Los Angeles.

THE Surgical Association of the Atlantic and Pacific met at Albuquerque October 16th.

A NOTICE has been posted in the electric cars, Santa Barbara, against spitting on the floor.

DR. T. EDWARD POST, a well-known physician in Los Angeles, died suddenly October 22d.

THE Pan-American Medical Congress will meet in the City of Mexico on the 16th November.

THE second session of the San Joaquin Valley Medical Society was held in Fresno, October 27th.

IT has been decided that the new pest-house will be located within the City and County Hospital grounds.

A VERY strong movement against free clinics and lodge practice is being carried on by the physicians of Alameda County.

WE have been favored with the following item: Wanted—In or near Bruneau Valley, a physician who will visit the sick when sent for.

PROFESSOR HILGARD, of the State University, Berkeley, finds, after careful investigation, that California fruits have far greater food strength than European fruits.

THE X ray free clinic fad has spread quite generally over the country of late, many of the quacks have taken it up and give it great prominence in their advertisements

CONSUMPTION CURE fakirs must find a good field for their talents in Southern California if we may judge by the number of of such advertisements in the Los Angeles papers.

THE *Medical Sentinel*, of Portland, Oregon, is one of the most valuable and progressive medical journals published this side of Chicago. It has a large circulation in Washington, Oregon, Utah, Montana and Idaho, which has been obtained by the untiring energy of its able editor, H. W. Coe, M. D.

PACIFIC MEDICAL JOURNAL

VOL. XXXIX. DECEMBER, 1896. No. 12.

Original Articles.

AS TO THE INTRINSIC MOVEMENTS OF THE VOCAL CORDS AND THE TREATMENT OF THE SINGING VOICE.*

By FRANK DONALDSON, B. A., M. D.,
Sometime Scholar in Biology, Johns-Hopkins University; Professor of Physiology, College of Physicians and Surgeons, San Francisco.

The intrinsic movements of the vocal cords in singing have been the subject of considerable discussion. It has, however, generally been held that in the lower notes they vibrate as a whole throughout their entire length, but that in what is ordinarily known as the falsetto register the cords themselves are relaxed, and their margins or mucous covering only vibrate. Although the theory of purely marginal vibration was first advanced by Lehfeldt,[1] Johannes Muller[2] is really responsible for its acceptance as a fact by practically all writers since his time. It is curious that the intrinsic movements of the cords were not studied until 1878, when Oertel in the *Centralblatt fur Wissenschaftliche Medicin*, Stuttgart, described an instrument, the laryngo-stroboscope, which he used for the examination of the vocal cords in phonation. Later, in 1883 and 1886, the stroboscope, in its then imperfect form, was used in a scientific study of the vibration of membranes in an artificial larynx by Koschlakoff, of St. Petersburg,[3] Simanowski, of Moscow,[4] and Imbert, of Brussels,[5] but the perfected instrument and the results of investigations with it upon the human larynx were only published by Oertel in the *Archives fur Laryngologie* for August, 1895.

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* Read before the County Medical Society, Oct. 13th, 1896.

[1] *Nonnulla de vocis formatione. Dissert. Inaug.* Berlin. 1835.

[2] Ueber die compensation der physichen Krafte am Menschlichen Stimmapparat. Berlin. 1839.

[3] Wratsch, St. Petersburg, 1884, No. 38; Pfluger's Archives fur Physiologie, 1885, Band 34, and 1886, Band 38, p. 428.

[4] *Russkaja Medicina*, 1885, No. 24.

[5] *Nouv. Montpellier Medicale*, 1892, Supplement, p. 149.

This instrument is shown in Figures 1 and 2. Behind the large reflector M is a rotating disk S, in the periphery of which there are three rows of holes, a, b, c, respectively, 32, 16 and 8 in number, covering three octaves. By the handle B the reflector can be placed over one or the other row of holes. The disk is made to rotate by the motor D, whose rate can be regulated by the rheostat R. On the other hand, the rate of the disk itself may be further controlled by the brake V. In order to find the exact rate of interruption of the disk and its relation to the rate of vibration of the membrane, which is an absolute necessity in the

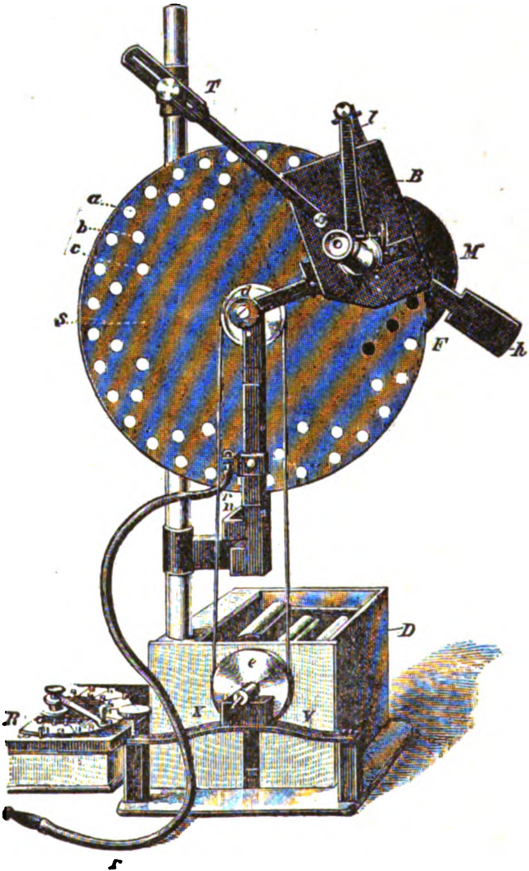


FIG. 1.

examination of the vocal cords, the disk is arranged so that it acts as a siren, and we can get an exact correspondence between the note of the cords and of the disk. In other words, we can get synchronism between the vibrations of the two. When the tone of the vocal cords is the same as that of the disk, we see the vocal cords apparently at rest, but by varying the rapidity of the rotating disk the intrinsic movements of the vocal cords become very distinct. This may be readily understood if we remember that when there is unison between the tone of the disk and that of the vocal cords, in the time which elapses between

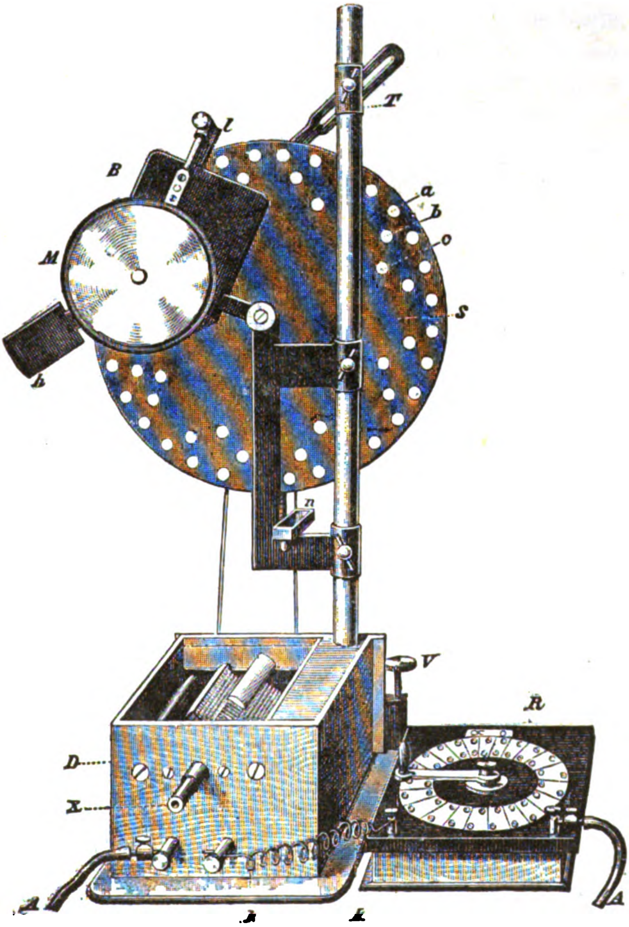
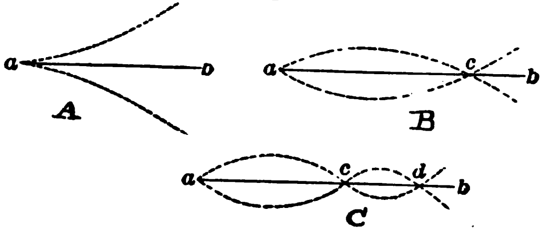


Fig. 2.

the appearance of the vocal cords through one hole and the next, the cords will have completed one vibration, and consequently will be seen as if at rest. If, however, the rate of the disk is slower than the oscillations of the vocal cords, the vocal cords will have finished one excursion to and fro, and begun a second, before a second hole comes to give us a glimpse of them. Thus, with a difference of $\frac{1}{n}$, for example, between the rate of the disk and that of the vibration of the cords, the cords between each opening will have described $n+1$ movement in time, but we see only the movement represented by n, and so in a given series we see the membranes moving slowly and we may observe any portion of their surfaces. By magnifying the size of the vocal cords their intrinsic movements will naturally be more distinct. In order to get such a magnified image, a telescope, F, is fixed to the instrument. Any method of illumination of the throat may be used, and the hand-mirror is introduced and manipulated as in an ordinary laryngoscopic examination, the instrument, of course, being placed in front of the singer.



FIGURES 3, 4 and 5.

The vibrations of membranes, as seen, for instance, in an artificial larynx, such as was used by Koschlakoff, is interesting and has a direct bearing on the intrinsic movements of the cords in phonation.

If you examine with the stroboscope a membrane set in motion by an air blast you will find that it vibrates throughout its entire length and breadth, and at the same time divides into segments—longitudinally and transversely—the segments being divided by nodal lines. Longitudinally it vibrates like a string—transversely like a rod fixed at one end, the membrane being divided by nodal lines between which are well-marked waves.

A cross section under these conditions gives an exact picture of a rod fixed at one end and vibrating and divided by nodes. Figs. 3, 4 and 5. Longitudinally nodal points are seen on the free edge of the membrane, but these vibrations extend but a little distance transversely, and a section of the free edge would give a picture of a vibrating string.

If the vocal cords of a singer are examined with this instrument and the lowest note is sounded, the disk of the stroboscope being made to revolve more slowly, that is, if the rate of the disk is less than the oscillation of the vocal cords, these will be plainly seen to vibrate through the entire length and breadth. Fig. 6.

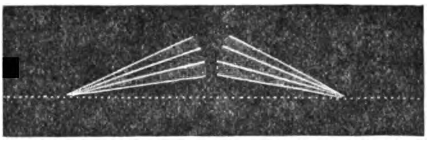


Fig. 6.—Vibration of the vocal cords in the chest register in transverse section.†

The vibrations of the cords are synchronous and the extent of oscillation extensive. When a higher tone is sounded an increase in length and a decrease in breadth is visible, but just here the intrinsic movements are lost and do not appear again until the rate of the disk is increased to about that of the vocal cords.

In the upper register, on the other hand, the vocal bands may be seen vibrating throughout their entire length and breadth, but the character of the movements is entirely altered.

The vocal cords are flatter and thinner, and are divided into two segments, an outer and an inner, which have their own rate of vibration. Fig. 7. This division is shown by a faint oval line lying close to the free edge of the cord. This line is shown in cross section in Fig. 4, a node is developed at *c*, the cord being divided into two unequal segments. The movement of the vocal band here may be likened to a rod fixed at one end, where at three-fourths of its length a node has developed.

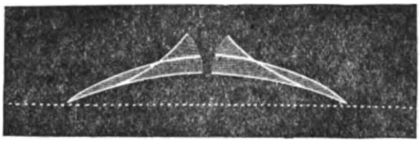


Fig. 7.—Vibration of the vocal cords in the upper register in transverse section.†

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†Taken from Koschlakoff, *op. cit.*

As the note rises the movements disappear a second time, only to be seen again when the rate of the disk is increased proportionally.

Oertel remarks that he saw a second nodal line but once, and that was in a singer who had a remarkable falsetto and very broad cords. In this case there were three segments, as shown in Fig. 5 in a cross section. It is an interesting fact that Koschlakoff saw this second nodal line in an exsected larynx which he was examining with the stroboscope where the membrane was much infiltrated and loosened and the cord much broadened.

There is very much more of interest in connection with these experiments upon the physiology of the vocal cords, but I shall leave the subject at this point, as my purpose in this paper was rather to speak of the treatment of the singing voice, which is probably of greater interest to you as practicing physicians.

Speaking generally, the treatment to which that delicate organ, the larynx, is subjected is a reproach to our art. I do not refer to surgical procedure for removal of growths, nor to the treatment of chronic or sub-acute diseases of the organ, but to that form of trouble which presents itself in voice users —actors, speakers or singers—as a result of constant strain, over-work, or of a faulty method of voice production. For many years it has been the habit to apply astringent medicaments to the vocal cords, either directly with the tampon or by inhalations and insufflations which, though they may temporarily improve the condition of the cords, do not remove the cause of the hoarseness and vocal breakdown. Such applications not only soon lose their effect, but eventually cause a chronic thickening of the vocal cords, and permanent impairment of the voice for speaking or singing which even prolonged rest will fail to relieve. (In this connection I am tempted to black list one more especially, among those remedies which have caused the impairment of many voices, to wit: *nitrate* of *silver*. I cannot too strongly deprecate its use; it should never be applied in that form of vocal collapse under discussion.) Local applications having changed an acute into a chronic condition, there comes a time when the physician prescribes absolute rest for the vocal cords. This is a simple course for the surgeon, but to the man or woman whose livelihood depends upon his or her voice, it is a very serious matter, and means weeks and months of no salary, with loss to the artist, and may be suffering to those dependent upon his exertions.

Complete rest from all vocal exertion, from singing or speaking, will undoubtedly in many cases restore the vocal organ to its normal condition, but it is merely a question of time when the patient comes again, complaining of hoarseness, lack of tension, inability to hold a note, to sing a trying role, or to sing more than once or twice a week. This may, of course, be the result of exposure or acute cold, but I am speaking of those cases which are plainly the direct result of the *use* of the voice, and not of extraneous causes, or the physical state of the patient.

What then is the cause of such a condition? It is the immediate result of faulty methods of breathing, and of vocal training taught by so many teachers, and practiced by so many artists. In my own practice among singers and speakers, it was a constant source of annoyance to me that I could do nothing to permanently improve their overstrained vocal cords. I knew, of course, that strained cords could be temporarily relieved by a change of vocal exercises. But no method of applying this knowledge so as to permanently improve them presented itself to me. Curtis, of New York, was the first to perfect and put into practice such a method, which he described at the Music Teachers' Convention, held in Rochester in 1893.

Curtis had observed in the course of an extensive practice among singers that in the pupils of a certain master who came under his care, complaining of fatigue in singing and difficulty in holding a mezzo note, and hoarseness, that the opening of the glottis on phonation was more or less elliptical, while in those from another school the opening of the glottis was slightly convex, and that the cords touched at a certain point, and furthermore in some cases that the more or less constant attrition of the cords had caused a nodule of attrition—those little pearly spots on the free edge of the vocal cords which are so dreaded by artists.

Curtis found the first class of singers used in daily practice the vowel "o" with a faulty method of breathing; the second class, the vowel "a" as in ah and "e" with an explosive method of attack. It suggested itself to him to change the method employed by the two classes, and making each employ the method of the other in practice, and to his surprise he found that the patients were cured of the conditions of which they complained. This, of course, was good as far as it went, but, if continued, one pathological condition would simply have been changed to another. It was this consideration which led him to seek some combination of consonants with a vowel by which the shock of air breaking through the glottis should be reduced to a minimum, and which, when used constantly, would not cause the vocal cords to come together at any point. With this object in view and that the tone might be thrown forward, he built up a series of exercises with the labials "p" and "b," which are essentially formed at the lips, combined with "a" and "aw" making the sound "mah" or "maw." These consonants, it may be remarked, alter the nature of the attack in the registers the least, and consequently disturb but little the muscular poise of the larynx.

These exercises, of course, were combined with a proper method of respiration and management of the soft palate. I have seen the result of their use in many singers whose cords were congested, whose voice lacked carrying power, or was produced only with great effort and followed by great fatigue, and I state advisedly that the relief afforded was really astonishing.

Curtis has been much criticised for the position he has taken in this matter and I am satisfied unjustly. I have used and am using the exercises prescribed by him constantly and with excellent effect. I do not deem it necessary to give in detail here the actual method of producing the notes with this combination of consonants and vowels, but it should be made plain that they must be combined with a proper system of breathing, and a proper management and use of the larynx.

The method of breathing which I am accustomed to recommend is one by which not only the capacity of the lungs is increased to its greatest extent, but gives a fixed sounding board for the notes as produced in the larynx; in other words, the person is taught to elevate the upper part of his chest by muscular effort, and to keep it fixed in that position, and that method of breathing which Curtis calls the inferior costal and diaphragmatic, as opposed to the abdominal, is enforced, care being taken to see that the abdomen is retracted at least as high as the navel; a point of vantage being thus given for the action of the diaphragm, the result is that the singer will gradually cease to sing or push out the note from the throat and the breathing will come naturally and freely and there will be no waste of air.

I spoke of the management of the soft palate. The singer should be taught to keep it relaxed, *i. e.*, it should not be felt in the slightest degree. Many teachers, by the way, hold that the tone produced when the palate is kept lowered will be nasal, but this, as Curtis says, is largely imaginary, and that whatever nasal element there may be in singing the exercises, will promptly disappear the moment words and consonants are added.

Another very important point in the treatment of worn vocal cords (in German singers the immediate result of forcing and muscular strain) is the poise of the larynx. The singer should be taught to produce the notes from the lowest to the highest in his compass without external strain or *allowing his larynx to rise.* Where this is done, you will find an entire absence of muscular contraction and facial contortion which so often accompanies the singing of high notes.

Again, in all cases of vocal strain, it is my practice to examine most carefully into the nose and posterior nares, and to remove redundant tissue and deflections of the septum.

The tremendous influence of the upper cavities in the formation of tone, I am inclined to believe, is but little appreciated among us laryngologists, and, indeed, by many teachers also. We know that for every tone there is a column of air which most powerfully reinforces it. We know that the beauty of the over-tones depends upon the readiness with which either the string or the air column divides itself into appropriate segments. We know, too, that in the human voice the string or reed of the musical instrument is represented by the vocal cords, and the sounding board (of the violin or piano for instance) by the cavities above the glottis. Without doubt, the timbre of the voice depends on these cavities, or rather the column of air in them. And hence any condition which interferes with the absolute patency of the nasal cavities, any inflamed or swollen condition of the mucous membrane or deflections of the septum, will interfere very seriously with the proper production of the over tones of the human voice.

This may be made plainer, perhaps, if you will consider that the production of tone in the larynx is in reality a combination of tone production in reed instruments and tongue flutes. In other words, the tones are not always the result of the vibrations actually imparted to the air by the vocal cords, but of the vibrations of the air column in the vocal tube and resonating cavities. I mean that in the higher notes the vocal cords sound the fundamental tone, and that the upper register is the result of the sympathetic vibrations of the subdivisions of the air column. The vocal cords become indeed to an extent flexible reeds, sometimes commanding and sometimes commanded by the vibration of the columns of air in the resonating cavities. I am reasonably certain that the air in the cavities of the nose and throat vibrates, as in a flute, for the low notes, as a whole, for the higher in two, and in still higher notes in three columns. Curtis calls attention in this connection to the fact that in very highly-trained voices there are developed beautifully clear, bird-like notes (we actually call them flute-like) and he thinks that in such a case the column of air is probably quartered.

It is therefore plain that the more patent the cavities and the better the management of the soft palate the more readily the column of air will be sub-divided, and consequently the richer a voice in over tones.

Considerations such as these have convinced me of the necessity of seeing that the cavities above the larynx are absolutely patent and free from inflammatory process in cases of vocal strain, and furthermore that all local applications should be avoided which might thicken ever so slightly those exquisite little bands—the vocal cords.

Some physicians of Vienna claim to have traced cases of tuberculosis to the use of the public telephone.

A case in which the spinal cord of a rabbit was successfully used as a graft in the median nerve of a man, is reported by Dr. Mayo Robson in the *British Medical Journal.*

To prepare catgut Hoffmeister recommends as follows: (1) Wind the catgut on a glass spool and harden in a 4 per cent solution of formalin for twenty-four hours. (2) Boil in water for ten minutes. (3) Preserve in alcohol containing 5 per cent of glycerine and 0.1 per cent of corrosive sublimate. From the beginning to the end of the operation the catgut should remain on the same spool and should not be touched by the fingers. This prevents it from twisting into kinks.—*Centralb. fur Chirurgie.*

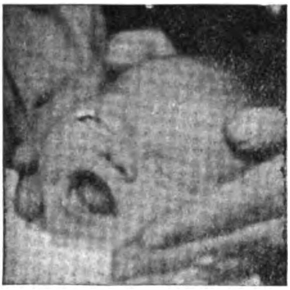
DERMOID TUMOR OF THE EYE.

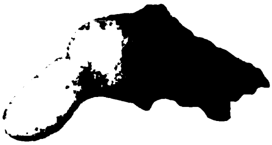
By H. G. THOMAS, M. D., Oakland, Cal.

The following case was brought to my notice by Dr. Hester A. Hewlings, of East Oakland.

Baby Peterson was the proud possessor of a rather unique dermoid tumor when he first saw the light. The base, of funnel shape, reached from the temporal one-sixth of the cornea to the outer canthus, and from upper to lower fornix.

The child was four weeks old when brought for operation. After chloroforming, I introduced the stop speculum, and pulling the tumor out taut, found that the base, instead of spreading from fornix to fornix, came up as a thin band from the cornea to the outer canthus. The portion outside the lids was of the usual skin formation and covered with very fine hairs. I passed three sutures just under the well-marked line between the base of the tumor and conjunctiva, and after dissecting the corneal portion off with the angular keratome, removed the rest with the scissors. The tumor was very vascular, quite a fair sized artery being divided. The hemorrhage was controlled by pressure, and the conjunctival surfaces brought together by the sutures previously introduced. Healing was prompt and uneventful.





Natural Size.

These tumors are usually small, sessile, and nearly always to the temporal side of the cornea, and are congenital. Some ascribe them to amniotic adhesions, others to a coalescence of the lids which on parting leave a fragment. Both are guesses, and we are left to take our choice.

STRICTURE OF THE URETHRA.

A Report of One Hundred Cases Treated by Internal Urethrotomy.

By WILLIAM H. DUKEMAN, M. D., Los Angeles, Cal.

A review of the one hundred cases herein reported, I trust, will be of sufficient value to add evidence to the merit of the operation of internal urethrotomy.

I wish to first state that I do not treat all strictures by internal urethrotomy. Dilatation has its value, but where we fail to effect a cure by dilatation, after giving it a fair trial, we should feel it our duty to try to cure our patient, and not send him away with a box of sounds, and tell him he must pass them occasionally the remainder of his life. And also in many of the so called impermeable strictures (where, by repeated efforts, a filiform bougie can be made to pass the obstruction) internal urethrotomy is the operation far preferable to the external operation. Experience has also taught me that in the nodular and semi-fibrous strictures, whether of small or the so-called large caliber, it would be folly and torturous treatment to the patient to attempt to cure him by dilatation.

The operations herein reported cover a space of ten years, and while I have not been able to keep track of all the cases, I have endeavored to keep track and notes of the more serious ones.

The following is a copy of a circular letter addressed to those more serious cases:

Mr. ——

Dear Sir:—Would you please inform me whether or not you have experienced any trouble from your stricture since I operated on you and pronounced you cured? Yours truly,

W. H. Dukeman.

The following reply to case No. 1 of this report is a fair sample of many replies received, and proves the permanency of the cure. (Case No. 1 was operated on ten years ago.)

N. Y., June 27th, 1896.

Dr. Wm. H. Dukeman, Los Angeles, Cal.

My Dear Doctor:— * * * * I am happy to state that my strictures have never given me the least bit of trouble since you cured me. The sound you gave me I had not passed for over three years. It slipped in as easy as ever, and I have concluded I need not bother passing it any more. * * * *

Yours very respectfully, F. L. G.

The larger majority of the operations have been done in this city, and whenever opportunity offers I make inquiry of my patients how they are getting along. In some few the operation had to be repeated, as the report shows. And I myself have operated a second time, failing to make a thorough division of the stricture tissues at the first operation, and in two instances, cases No. 59 and 63, a third operation was performed before a cure was effected, showing conclusively that the stricture must be thoroughly and completely divided before a permanent cure can be assured, no matter whether the stricture is of small caliber, or of the so-called large caliber. I have not followed any special hobby in determining on an operation, nor have I followed any *hobby* in determining the normal caliber of the urethra by corresponding measurements. Each case is studied of itself before an operation is decided upon. The caliber of the healthy urethra is determined by the use of the *bougie à boule* or the urethrameter. Into the urethra is first injected a drachm of olive oil. The placid penis is slightly pulled up, not stretched, and the urethrameter is introduced, and as it is being expanded it is moved along the urethral canal until it is expanded up to a point which will snugly fill the urethra and yet not fit tight, but will move smoothly and freely. The normal caliber having been determined, the exact location and caliber of the stricture or strictures is determined with the same instrument, although the *bougie à boule* will answer very nicely. By not stretching the penis we can more accurately determine the normal caliber as well as the location and caliber of the stricture.

In many cases I found the meatus very small in comparison to the normal caliber of the urethra, and in all of these cases it was absolutely necessary to enlarge the meatus to the size of the normal urethra. But in doing so I find that in the majority of cases the meatus can be sufficiently enlarged without ripping the external very elastic membrane at the junction of the lips, the lower commissure, as is the usual custom. By preserving this external elastic covering the urethra retains its normal propulsive power, and the stream of urine does not spread and spatter in all directions. With Otis' urethratome the meatus can be enlarged to the desired caliber very nicely; care being taken not to withdraw the knife through the commissure of the external membrane.

Before an operation is performed, the patient is prepared by giving him a mild saline cathartic the day previous. And immediately before the operation the urethra is thoroughly cleansed by irrigation. A reflux catheter is introduced well up to the prostatic urethra and one or two quarts of a warm, three per cent solution of boracic acid is passed through. In some cases where bladder complications exist, this organ is also thoroughly washed. The penis and surrounding parts are also thoroughly washed. Everything being clean and aseptic I then inject two cubic centimeters of a four per cent solution of cocaine into the urethra if the stricture is in the four-inch distal end and a two per cent solution if the stricture is in the deep urethra and have it retained from seven to ten minutes. (See article, "Cocaine in Urethral Surgery," by the writer in the *New York Medical Journal* for Sept. 21st, 1895.) All instruments used are also rendered aseptic.

After the operation the urethra is again well irrigated with the boracic acid solution plus ten per cent listerine and the patient is put to bed. A piece of absorbent cotton or lintine about nine inches square with a hole in the center through which to pass the penis is placed over the parts. The penis is laid up over the pubes, and over the penis is laid a thin piece of lintine moistened with the listerine solution and a small piece of ice is now laid on the penis. Every fifteen or twenty minutes the ice is taken off to keep from chilblaining the penis, and then in a couple of minutes replaced again. This is kept up for from twelve to twenty-four hours. Once an hour for the first two days the urethra is irrigated with the listerine solution. During the first twenty-four hours the patient is kept on a milk diet and if no signs or symptoms of urethral fever appear up to this time he is allowed to get up.

The patient is invariably up and around the next day after the operation. In only three cases out of the hundred—Nos. 9, 20 and 76—were patients confined to their bed for three days. In all three there was retention of urine before the operation. All the others were up and around in twenty-four to forty-eight hours. No urethral fever nor complications having occurred in any case, it is needless to state there was no deaths.

I did not pass a sound until the fourth to the seventh day after the operation, and in one instance, case No. 26, owing to the patient going out of town, a sound, No. 30, was not passed until the tenth day. The sound passed as easily then as it did immediately after the operation. From this time on I have not passed a sound until several days after the operation, and I am now lengthening out the time and pass a sound only a few times until the incision is thoroughly healed and then only occasionally for a short time after. In the above instance the No. 30 sound was passed only twice, and after six months the same sized sound passed as freely as on the day of the operation. I am now investigating how often it is really necessary to pass a sound after a complete division of the stricture, and whether it is at all necessary in a particular class of cases. I hope to be able to report favorably on this point in the near future.

After an operation a cure is determined only when the same sized *bougie à boule* passes through the once strictured urethra as freely as it does through the normal healthy urethra, recognizing, of course, the irregularities of the caliber of the normal urethra, and the roughened vibrations in case of stricture, communicated by the sense of touch to the fingers along the instrument, which experience alone teaches and to which the fingers become educated. Also all former symptoms having disappeared.

Why some surgeons of large experiencer in treating strictures continue to protest against internal urethotomy and speak so praiseworthy of dilatation I cannot understand. To bear out the position I have taken I will report more in detail case No. 98, viz.: Sixteen years ago he was treated by his family physician by dilatation. After one year's treatment he was advised to go to Philadelphia to consult a well-known specialist who, after a thorough examination, advised him to get a set of sounds (Nos. 20 to 26 F.), and to pass the largest he could pass occasionally as best he could the remainder of his life, strongly advising him not to have an operation performed, stating that if he could always pass a No. 24 or 26 F. sound he should consider himself well and fortunate as to his ailment. Here, then, is a young man condemned to be an invalid the rest of his life, who, by the advice of an able and well-known specialist has for fifteen years suffered much pain and distress and torture in the passing of sounds and much annoyance and untold disgust from a chronic discharge all this time. Finally, when his health is greatly undermined, he seeks the climate of California to regain his health, never thinking his stricture could be cured. It was only by accident that he called at my office. He related his history. After a thorough examination I advised an immediate operation which, I am happy to say, resulted in a cure in ten weeks. He returned to his home in Pennsylvania and re-entered into business a well man, so far as his stricture is concerned.

No.	Case	Age	Married or Single	Attacks of Gonorrhœa			Symptoms presented on examination.	Normal caliber of urethra	Location and caliber of strictures		Stricture cut to	Results.	Former Treatment.
				No.	First.	Last.		No. F	Inch	No. F	No. F		
1	1886 F. L. G.	36	M.	4	14 yrs. ago	1 yr. ago	Chronic discharge, shooting pains in urethra, irritable bladder. Strictures irritable and bleed.	30	½ 3¾ 5½	12 10 6	32	Cured in 2 mos.	Passed sounds up to 20F for p'st 5 yrs. until stricture became irritable.
2	C. B.	24	S.	2	4 yrs.	1 yr.	Chronic discharge, pains in urethra, tenesmus when urinating, pain in back. (After divulsion had lumbar abscess.)	32 Secon	3 8¾ dop	4 2 ertn	32 34	Greatly impr'd after 10 weeks. Second operat'n cured in 6 mos	Was treated by electricity and forcible dilatation by Gouley Divulsor 2 years ago.
3	E. C.	22	S.	1	1 yr.	.....	Uneasy feeling and pains in urethra and testicles.	31	½ 2	22 20	32	Cured in 4 wks.	Dilatation for 2 months little improvement.
4	F. W. R.	28	S.	3	5 yrs.	2 yrs.	Scalding sensation and pain in urethra, strictures irritable.	30	¾ 2½ 4	22 20 19	31	Cured in 6 wks.	Was treated by electrolysis and dilatation.
5	M. D.	28	S.	1	2 yrs.	.....	Pain in testicles and pain and irritation while urinating.	30	3¾	22	32	Cured in 7 wks.	Dilatation.
6	F. R. A.	33	M.	1	15 yrs.	.....	Double meatus, shooting pains in urethra and back.	30	½ 2½	17 6	31	Cured in 2 mos.	None.
7	J. O. D.	27	S.	1	2 yrs.	.....	Pain and irritation while urinating.	31	2 3	24 26	32	Cured in 4 wks.	Dilatation.
8	C. G. F.	26	M.	3	4 yrs.	1 yr.	Chronic discharge, pains in urethra, stricture irritable and bleeds.	31	¾ 2½	20 16	32	Cured in 4 wks.	Dilatation.

9	1886 S. R.	42	S.	3	20 yrs.	3 yrs.	Chronic discharge, pain while urinating, tenesmus and pain in back, shooting pains in urethra. Second operation.	30	1 to 4 and 5½ to 6½	2 1	30 32	In 3 mos. was not well. Cured in 6 wks.	Dilatation for 8 years to 12 F. For past 2 years did nothing.
10	H. H.	33	M.	2	10 yrs.	3 yrs.	Pain in urinating and pain in back	28	2½	22	29	Cured in 4 wks.	Dilatation.
11	1887 L. C.	34	M.	4	12 yrs.	2 yrs.	Shooting pains in urethra, stricture very irritable.	30	1 3¾	27 22	32	Cured in 6 wks.	None.
12	C. E. F.	28	M.	2	10 yrs.	3 yrs.	Scalding sensation and pain in urethra.	30	¾ 2½	22 24	31	Cured in 4 wks.	Dilatation.
13	E. R.	27	S.	2	4 yrs.	3 yrs.	Shooting pains in urethra and cystitis.	29	3 to 3½	22	30	Cured in 2 mos.	Dilatation.
14	E. E. S.	34	S.	1	6 yrs.	.....	Burning or scalding sensations while urinating.	30	4 to 4½	20	31	Cured in 2 mos.	None.
15	J. S.	28	S.	2	6 yrs.	1 yr.	Burning pain in perineum, shooting pains in urethra.	27	5	17	28	Cured in 6 wks.	None.
16	J. F.	35	M.	4	14 yrs.	3 yrs.	Pains in urethra and pain after urinating	28	3½	13	29	Cured in 7 wks.	Dilatation.
17	T. C. D.	34	M.	2	14 yrs.	2 yrs.	Severe burning pain in urethra and testicles.	30	3 5	20 22	31	Cured in 8 mos.	Dilatation for 6 years.
18	J. H. C.	32	S.	1	3 yrs.	.....	Frequent desire to urinate and pains in urethra.	28	2½	20	29	Cured in 4 wks.	None.
19	T. H.	24	S.	1	2 yrs.	.....	Bloody discharge, stricture irritable.	30	3½	18	31	Cured in 6 wks.	Dilatation.

No.	Case	Age	Married or Single	Attacks of Gonorrhœa			Symptoms presented on examination.	Normal caliber of urethra	Location and caliber of strictures		Stricture cut to	Results.	Former Treatment.
				No.	First.	Last.		No. F	Inch	No. F	No. F		
20	1888 T. C.	28	S.	1	3 yrs.	....	Chronic discharge, retention of urine, high fever, confined to bed for 2 weeks.	30	3 5	14 9	31	Up and around in 3 days. Cured in 6 wks.	Dilatation for 6 months causing great irritation and retention of urine.
21	H. K.	33	M.	2	5 yrs.	6 mo.	Chronic discharge, rheumatism pains in urethra and testicles.	31	¾ 3 to 3½	24 18	33	Cured in 2 mos.	Dilatation for 2 years.
22	P. W.	30	M.	N	......	.....	Traumatic stricture, pains in urethra and testicles.	26	2½ to 4	13	27	Cured in 3 wks.	None.
23	M. M.	29	S.	2	4 yrs.	2 yrs.	Morning drop and pain in back.	29	2½	17	30	Cured in 4 wks.	Dilatation.
24	D. B.	27	S.	3	7 yrs.	3 yrs.	Pains in urethra, shooting pains in scrotum.	29	5	22	30	Cured in 3 wks.	None.
25	1889 T. J.	32	M.	N	......	.....	Traumatic stricture, pains in urethra, testicles and back. Passes 28 sound weekly. Stricture irritable.	34	1½ to 3	26	36	Cured in 3 mos.	Was operated on twice by well known N. Y. specialist. Passed 32 sound until 1 yr. ago.
26	J. D.	24	S.	1	3 yrs.	.....	Scalding pain while urinating, piercing pains along urethra.	29	2½	12	30	Cured in 4 wks.	None.
27	T. B.	27	S.	1	2 yrs.	.....	Frequent urination and pain in urethra.	32	3½	20	33	Cured in 4 wks.	Dilatation.
28	M. W.	29	M.	1	4 yrs.	.....	Pains in urethra and pains in groins.	30	2½	24	31	Cured in 4 wks.	Strong injection.

29	1889 W. R. H.	26	S.	1	4 yrs.	.....	Pains in urethra and pain in urinating.	28	1 4	24 18	29	Cured in 6 wks.	Dilatation.
30	L. E.	27	M.	2	6 yrs.	2 yrs.	Burning sensation in urethra, pain in back.	30	3½	18	31	Cured in 7 wks.	Dilatation.
31	1890 C. R.	26	S.	1	2 yrs.	.....	Burning pains while urinating.	30	2½	22	30	Cured in 4 wks.	None.
32	A. C. V.	32	S.	2	6 yrs.	2 yrs.	Chronic discharge and pains in urethra, very nervous. Passes 18 sound.	28	3½	20	29	Cured in 2 mos. nervousness also relieved.	Dilatation for 1½ years.
33	F. G. J.	27	S.	1	3 yrs.	.....	Pain while urinating, pain in urethra.	31	3½	18	32	Cured in 5 wks.	Dilatation.
34	P. L.	55	M.	1	15 yrs.	....	Pain in urinating and chronic cystitis. Passes No. 9 bougie.	29	4½	12	31	Cured in 7 wks.	Dilatation for 10 years.
35	B. H.	30	S.	1	6 yrs.	.....	Difficulty in urinating. Passes No. 15 bougie.	30	4	16	31	Cured in 6 wks.	Dilatation for 2 years.
36	A. W.	45	M.	1	20 yrs.	.....	Tenesmus. Wears urinal for past 3 years.	28	4½	2	30	Cured in 3 mos.	Dilatation for 6 yrs. up to 3 yrs. ago when he was unable to pass sound.
37	1891 C. W.	41	M.	1	10 yrs.	.....	Irritation at times when urinating.	28	2½	18	29	Cured in 6 wks	Operation 1 year previous to 26.
38	W. H.	23	S.	2	4 yrs.	2 yrs.	Pain in back and pain in urethra.	30	1 3½	18 22	31	Cured in 2 mos	Dilatation, used bougie No. 18 only.
39	J. F. K.	32	S.	2	8 yrs.	3 yrs.	Pain in urethra and groins.	32	4	22	33	Cured in 6 wks	Dilatation.
40	W. E.	27	S.	2	4 yrs.	2 yrs.	Pain while urinating and pain in urethra.	30	3	20	31	Cured in 7 wks	Dilatation.

No.	Case	Age	Married or Single	Attacks of Gonorrhœa			Symptoms presented on examination.	Normal caliber of urethra	Location and caliber of strictures		Stricture cut to	Results.	Former Treatment.
				No	First.	Last.		No. F	Inch.	No.F	No.F		
41	1891 J. B.	31	S.	Several	8 yrs.	.....	Chronic discharge for past 8 years and at times sudden stoppage of urine while urinating.	30	4½	16	31	Cured in 3 mos	Was treated by dilatation on and off for several years only to retract again.
42	H. C.	30	M.	1	3 yrs.	.....	Jerky urination, pain in urinating, shooting pains in urethra, testicles and back.	32	3½	18	33	Cured in 2 mos	Operation 2 years ago, cut to 30.
43	M. E. F.	28	S.	3	6 yrs.	6 mos	Chronic discharge and shooting pain in testicles.	30	3½	20	31	Cured in 2 mos	Dilatation.
44	1892 J. T.	26	S.	1	3 yrs.	.....	Burning pain while urinating.	28	3½	18	29	Cured in 6 wks	Dilatation.
45	W. P.	28	S.	4	6 yrs.	6 mos	Chronic discharge since first attack and pain in urethra.	32	4	20	33	Cured in 7 wks	Dilatation.
46	P. C.	30	M.	4	8 yrs.	1 yr.	Pain in urethra and shooting pains in back.	30	3½	23	31	Cured in 2 mos	Strong injection almost continuously for past year.
47	J. P.	30	M.	1	4 yrs.	.....	Pain while urinating and pain in urethra. Chronic discharge.	31	2	22	32	Cured in 6 wks.	Dilatation.
48	T. N.	26	S.	2	3 yrs.	2 yrs.	Chronic discharge and uneasiness and coldness of testicles	32	2½	16	33	Cured in 2 mos.	Dilatation.
49	A.W. F.	24	S.	1	2 yrs.	.....	Burning sensation while urinating	28	2¼	20	29	Cured in 6 wks	None.
50	J. H. D.	35	M.	3	9 yrs.	3 yrs.	Pain in the urethra.	30	3½	22	31	Cured in 5 wks.	Dilatation.

51	1892 C. S.	27	S.	3	8 yrs.	2 yrs.	Pain while urinating and pain in testicles and back.	31	3 5½	18 16	32	Cur'd in 11 wks.	Dilatation.
52	G. W.	26	S.	2	5 yrs.	2 yrs.	Scalding sensation while urinating and pain in groins.	30	3½	16	31	Cured in 4 wks.	None.
53	T. W.	24	S.	1	4 yrs.	.....	Burning pain while urinating.	30	1½	22	31	Cured in 3 wks.	None.
54	1893 E. A.	41	M.	1	20 yrs.	.....	Pain in urethra, back and testicles. Passes No. 24 sound.	32	3½ 5½	26 24	33	Cured in 6 wks.	Dilatation.
55	O. M.	37	M.	1	17 yrs.	.....	Pain in urethra and back.	30	3 3¾	22 20	32	Cured in 2 mos.	Operated to 30 F 3 yrs. ago.
56	E. T.	34	M.	2	12 yrs.	5 yrs.	Chronic discharge and pain in urethra.	35	3 to 3¼	32	37	Cured in 6 wks.	Operated to 32 2 years ago.
57	F. H. S.	65	M.	1	40 yrs.	.....	Vesical tenesmus and stranguary, constant dripping of urine, wears urinal for past 8 years.	28	3¾ 6	2 2	30	Cured in 4 mos.	Occasionally passed No. 12 F bougie until about 3 years ago when the passage closed.
58	N. W.	27	S.	3	6 yrs.	2 yrs.	Burning pain while urinating.	31	2	15	32	Cured in 6 wks.	None.
59	A. E.	37	M.	3	10 yrs.	3 yrs.	Milky discharge, irritation and burning sensation along urethra. Posterior chronic urethritis.	39	2½ 3½ 5¾	35 32 32	39	Improvement. 6 months later return of all symptoms.	2 yrs. previous was dilated to 40 F with no improvement, passed 40 F sound himself for 1 yr. with little improvement in symptoms. All efforts used to cure deep urethritis failed.
							Second operation.				40	After 3 mos. did not get well.	
							Third operation.				42½	Cured in 6 w'ks except there remains chronic prostatorrhœa due to too early sexual indulgence.	

No.	Case.	Age.	Married or Single.	Attacks of Gonorrhœa.			Symptoms presented on Examination.	Normal caliber of urethra.	Location and caliber of strictures		Stricture cut to	Results.	Former Treatment.
				No.	First.	Last.		No. F	Inch	No. F.	No. F		
60	1894 J. C.	36	S.	4	12 yrs.	2 yrs.	Retention urine; has only been able to urinate by stranguary for past 6 mos., after 2 hours careful search passed filiform.	28	3½ 6	20 0	30	Cured in 2 mos.	3 yrs. previous was operated to 26 F, since which time stricture again recontracted.
61	J. K.	32	S.	2	6 yrs.	2 yrs.	Irritation and burning sensation along urethra.	34	5½	28	35	Cured in 4 wks.	Dilatation.
62	T. H.	27	S.	3	6 yrs.	1 yr.	Pains along urethra.	30	3	22	32	Cured in 4 wks.	Dilatation.
63	J. P. P.	32	M.	3	12 yrs.	1 yr.	Discharge. Pain in urethra, loins and testicles.	31	3½	23	31	Improvement only 1 yr. later.	Dilatation.
							Contracted gonorrhœa twice since first operation. Second operation.		4½	18	32	After 6 mos did not get well.	Second operation 1 year after first.
							Third operation.				33	Strictures cur'd in 6 weeks, occasionally has prostatorrhœa due to over indulgence.	3rd. operat'n 6 mos. lat'r.
64	M. S.	26	S.	3	3 yrs.	1 yr.	Severe pains while urinating. Neurasthenia, stricture very irritable.	35	2	22	36	Cured in 6 wks.	Dilatation.
65	C. L. W.	26	S.	1	2 yrs.	.....	Irritation at times along urethra.	29	2½	23	30	Cured in 4 wks.	Dilatation.
66	J. B.	26	S.	2	2 yrs.	.....	Pain in urethra and loins.	28	2½	20	29	Cured in 6 wks.	Dilatation.
67	W. B.	27	S.	3	7 yrs.	1 yr.	Chronic discharge at times for several years.	30	2½ 4	22 24	31	Cured in 2 mos.	Dilatation.
68	J. A. C.	28	S.	3	4 yrs.	1 yr.	Pain in groins, perineum and back; uneasy feeling in urethra.	31	1 3½	27 26	32	Cured in 6 wks.	Dilatation.

69	1894 J. S.	25	S.	1	1 yr.	.....	Pain in urethra while urinating. Stricture irritable.	29	½ 3	22 24	30	Cured in 6 wks.	Dilatation.
70	H. B.	27	M.	3	6 yrs.	1 yr.	Pain and burning sensation while urinating.	30	1 4	22 20	31	Cured in 2 mos.	Dilatation.
71	S. A. H.	26	S.	2	3 yrs.	2 yrs.	Chronic discharge and pain and smarting while urinating. Posterior urethritis.	32	3½	28	34	Cured in 4 mos.	Operated on 1 year ago to 32, by San Francisco surgeon.
72	1895 S. W. G.	35	M.	1	5 yrs.	.....	Irritating watery discharge, causing excoriation of prepuce.	29	1 3	24 26	30	Cured in 3 mos.	None.
73	A. E. B.	26	M.	1	2 yrs.	.....	Bloody discharge and pains in urethra, bleeds profusely when sound is passed.	28	3	24	30	Cured in 2 mos.	Dilatation.
74	E. D.	31	M.	3	6 yrs.	2 yrs.	Pain and burning along urethra.	28	2 3 4	24 24 22	30	1 yr. after. Occasionally little irritat'n, passes 29 sound, 6 mo. later is well.	Dilatation.
75	C. I. N.	25	S.	1	1 yr.	.....	Pain in back, and at times shooting pain in urethra.	29	2½	23	30	Cured in 3 wks.	None.
76	W. T. C.	39	M.	2	15 yrs.	7 yrs	Retention urine, pains in urethra and back, cystitis. Health very poor, watery irritating discharge.	29	1½ 2½ 3¾	20 12 0	30	1 year after at times little irritation. Passes 29 sound. 2 yrs. after reported entirely cured.	Dilatation.
77	E. N.	29	S.	2	3 yrs.	1 yr.	Smarting sensation while urinating; milky discharge.	32	2½ 3¾	27	34	Cured in 4 mos.	2 yrs. ago was operated on to 32 by S. F. specialist.
78	H. J. L.	26	S.	2	6 yrs.	2 yrs.	Chronic discharge.	28	1½ to 2	22	29	Cured in 4 wks.	Dilatation.
79	G. T. I.	33	M.	2	2 yrs.	1½ yr.	Burning pain when urinating.	30	3	24	31	Cured in 2 mos.	None.

No.	Case.	Age.	Married or Single.	Attacks of Gonorrhœa.			Symptoms presented on Examination.	Normal caliber of urethra	Location and caliber of strictures		Stricture cut to	Results.	Former Treatment.
				No.	First.	Last.		No. F	Inch	No. F	No. F		
80	1895 G. W.	24	S.	1	3 yrs.	.....	Scalding pain when urinating and discharge.	28	1	22	30	Cured in 6 wks.	Strong injection.
81	M. T.	23	S.	2	3 yrs.	6 yrs.	Pain in urethra when having sexual relations.	30	2 3¾	22 22	31	Cur'd in 10 wks	None.
82	R. M. N.	26	M.	1	4 yrs.		Shooting pains in urethra.	29	2½	20	30	Cured in 4 wks.	Dilatation.
83	W. D. B.	24	S.	1	2 yrs.	.....	Shooting pains in urethra.	33	3½	22	35	Cured in 3 mos.	Dilatation.
84	E. D. C.	26	S.	2	3 yrs.	2 yrs.	Profuse discharge, severe urethral pains.	29	1½ 3¾ 5	23 22 24	31	Cured in 4 mos. Has chronic prostatorrhœa; would not abstain from too early indulgnce	None.
85	R. S. L.	28	S.	2	4 yrs.	1 yr.	Pains in groins along urethra. Had urethral chancre. Secondary syphilis.	27	½ 3	22 16	28	Cured of stricture in 5 wks.	None.
86	R. G. D.	27		1	2 yrs.	.....	Pains in urethra and testicles, also aching pains over pubic arch. Chronic posterior urethritis.	34	2 5½	31 30	36	Cured in 4 wks. Posterior urethritis cured in 6 months.	Was operated on 2 yrs. ago to 32 F. Dilatation previous to and after operation.
87	J. P. F.	27	S.	1	2 yrs.	.....	Frequent urination, vesical tenesmus. Pain in penis and rectum. Posterior urethritis.	32	½ 2½ 4½	22 26 22	33	Cured in 6 wks. Pos. urethritis cured in 7 mo.	Was very badly treated by quack for 1 yr. in all conceivab'e ways.
88	O. H.	31	S.	1	2 yrs.	.....	Pain while urinating. Shooting pain in head of penis.	28	1½ 3¾	20 21	31	Cured in 3 mos.	Was badly treated by same quack.
89	S. R. N.	24	S.	1	3 yrs.	.....	Burning pain while urinating.	29	2 3	24 20	30	Cured in 4 wks.	Strong injections.

90	1896 E. E.	25	S.	1	2½ yrs.	.....	Scalding pains in urethra, and shooting pains in groins.	29	2½ 3¾	22 20	32	Cured in 3 mos.	Was operated on 2 yrs. ago to 29. Dilatation since.
91	O. E. P	26	S.	2	3 yrs.	2 yrs.	Pains in urethra.	29	½ 2½	23 26	31	Cured in 2 mos.	Was treated by dilatation for 1 yr. by well known Chicago specialist.
92	J. L.	23	S.	1	2 yrs.	.....	Shooting pains in penis.	80	2	23	31	Cured in 6 wks.	Dilatation.
93	W.M. E.	29	S.	2	5 yrs	3 yrs.	Shooting pains in penis and occasional discharge.	29	3¾	22	31	Cured in 7 wks.	Operation 2 years ago to 29. Dilatation since.
94	R.W. V. P.	27	S.	2	3 yrs.	2 yrs.	Uneasy feeling along urethra. Nervous.	28	¾ 2½	24 24	30	Cured in 5 wks.	Dilatation.
95	B. M.	24	S.	1	3 yrs.	.....	Pain in urethra and testicles.	30	1 3	22 24	31	Cured in 4 wks.	Strong injection.
96	G. F.	27	S.	2	5 yrs.	2 yrs.	Pain and spasms while urinating; double meatus urethral chancre 3 mos. ago. Secondary syph., etc.	28	1	16	29	Str. cured in 4 wks.	Strong injection.
97	T. R.	29	S.	3	11 yrs.	2 yrs.	Shooting pains in urethra.	29	2½ 3½	22	31	Cured in 2 mos.	Dilatation.
98	E. B. V.	36	S.	8	20 yrs.	2 yrs.	Chronic discharge, pains in urethra, chronic rheumatism, pains in testicles. Very much run down in health.	28	2 to 3 4 6½	23 22 22	31	Cured in 9 wks.	For past 15 years used dilatation by advice of well known Philadelphia specialist.
99	H. F. D.	24	S.	2	4 yrs.	2 yrs.	Shooting pains in urethra.	33	3 4	24 24	34	Cured in 3 wks.	Dilatation.
100	T. Q. H.	26	S.	4	6 yrs.	1 yr.	Chronic discharge.	28	3 4	26 23	80	Cured in 10 wk. Too early s'xual indlgnce caus'd reappearance of slight discharge	Dilatation.

As the report shows, my figures as to the normal caliber of the urethra is about the same as given by most authors, the smallest caliber being 26 F., and the largest 39 F.

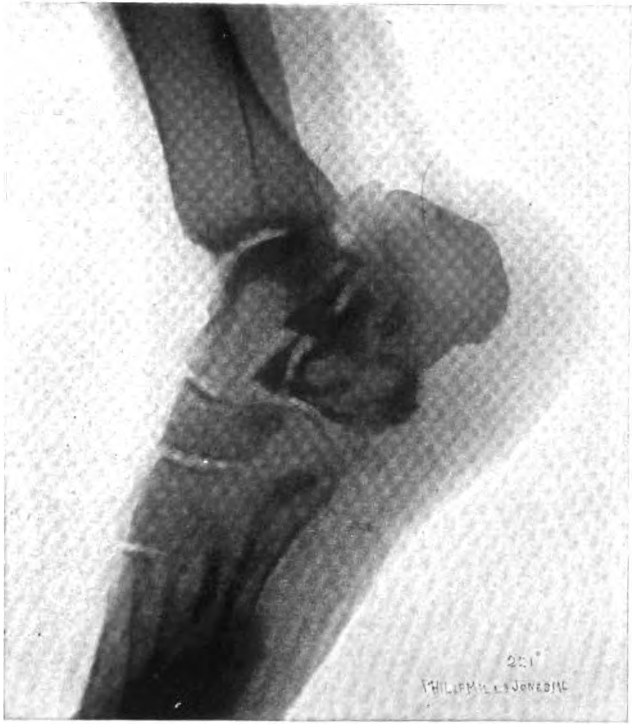
In summing up we find the normal caliber in the hundred cases reported as follows:

26 F in 1 Case
27 F " 2 "
28 F " 21 "
29 F " 17 "
30 F " 31 "
31 F " 10 "
32 F in 10 Cases
33 F " 2 "
34 F " 3 "
35 F " 2 "
39 F " 1 "

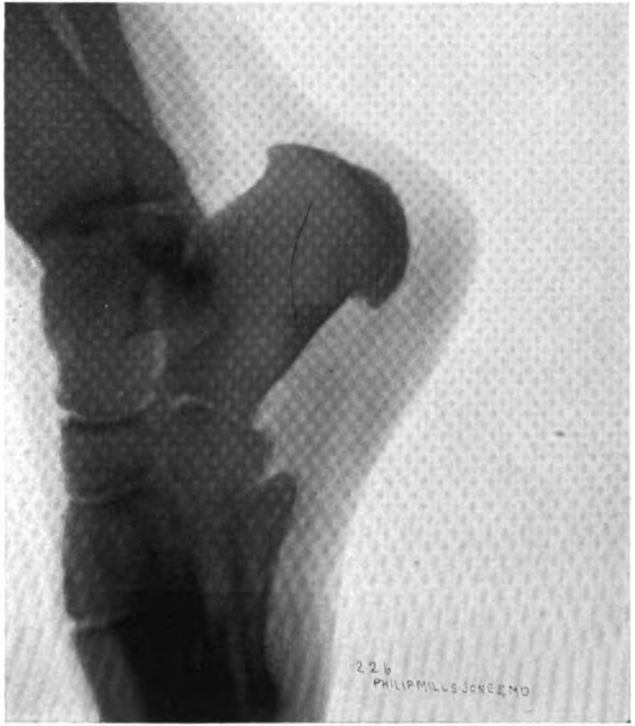
And in order to effect a cure it will be observed that it was necessary to divide the strictures from one to three sizes French, or from one-third millimeter to one millimeter larger than the normal caliber. This is very plainly demonstrated in those cases in which I had to operate a second, and in two cases a third, time before effecting a cure. The reason for this is plain when the causes and pathology of stricture are given due consideration.

The term "cured" is used in the sense that all traces of stricture have disappeared as well as all symptoms due to stricture. In some few cases a milky white discharge appeared later, for a short time, due in all cases, so far as I was able to learn, to too early sexual indulgence or intemperance.

In only one case of this report was there severe hemorrhage, and this was due to the division of a small artery in an abnormal location. I experienced the same trouble once previous due to same cause some years ago. However, by carefully applied pressure the hemorrhage was soon controlled. Ordinarilly there is little or no hemorrhage. Undoubtedly the cocaine is valuable in preventing hemorrhage. In conclusion I desire to say that in making out this report I have only stated the main facts briefly, especially in giving the symptoms and former treatment. For to go into detail in the treatment followed out in those cases complicated with chronic posterior urethritis, cystitis, prostatorrhœa, etc., would consume too much space, and is not intended to include within the scope of this article. The main facts are given as correctly as I have been able to determine them by the methods I have adopted. My endeavors were to cure my patients in the way I considered the best, the quickest, and yet the safest manner without subjecting my patients to the torture of pain and other disagreeable features of other methods. The report not only shows the results of my efforts, but how well I have succeeded my patients can attest.



No. 1—Fracture of the os calcis and astragalus.



No. 2.—Normal ankle-joint.

SCIAGRAPHS OF A FRACTURE OF THE ASTRAGALUS AND OS CALCIS, IN COMPARISON WITH A NORMAL FOOT.

By PHILIP MILLS JONES, M. D.

The patient, of whose ankle a sciagraph is shown in half tone, came to me at the Waldeck Laboratory some two months ago, giving the following history:—A little over a year ago, he fell a distance of about 30 feet, striking on his feet and principally on the left heel. It was immediately painful, and he consulted professional advice. He was told that the ankle joint had been sprained, and that in a few weeks it would be quite restored. Several weeks passed, the bandages were removed, and he was advised to exercise as much as possible, and that walking about would be beneficial, and remove the soreness and pain. Since that time he has endeavored to walk, but has had constant pain, very much increased after exercise; and walking is always followed by more or less swelling in the region of the joint. I made several sciagraphs of the joint, in different positions, one of which (No. 1) is reproduced in half-tone, and shows fairly well the condition of the bones of the foot. The second half-tone (No. 2) is given for comparison, and is a normal foot in substantially the same position as No. 1. A glance at the two pictures shows at once the nature of the injury sustained. The astragalus and os calcis have been forced together and broken into a large number of fragments. Careful examination (physical) failed to indicate the exact condition, though it was manifest that there had been some injury to the bones. The negatives from which these half-tones are made, show much more clearly the structure and present condition of the fractured bones, and the detail of the muscles and tendons. All this is lost in the half-tone. The time of exposure was five minutes in one case and four minutes in the other.

Waldeck X-Ray Laboratory, 803 Sutter St.

IT IS proposed to establish a department of physiology at the State University for students intending to study medicine. Students taking this course, and other prescribed studies, before entering the medical department, will receive the degree of B. S. The department of physiology has proved very successful at Stanford University and should be equally so at the University of California.

Sections.

MEDICINE.

In charge of SAM'L O. L. POTTER, M. D., M. R. C. P. L.,
Professor of Principles and Practice of Medicine and Clinical Medicine in the
College of Physicians and Surgeons of San Francisco.

Enteric Fever with Colon Lesions.—Dr. Henriot has investigated the subject of the diagnosis and prognosis of cases of typhoid fever in which the lesions predominate in or are confined to the large intestine, and he shows that when such is the case there is generally a series of symptoms which allow us to diagnose the situation of the lesion. Such cases are very rare. According to the author the following points may be observed: Diarrhœa is the most constant symptom, being profuse (eight or more times in the twenty-four hours), often fœtid, watery, and sometimes passed without the knowledge of the patient. Meteorism is an unreliable symptom, as it may occur in any case of enteric fever. Pain is frequently found to extend along the colon, and pressure on the abdomen demonstrates its localisation in the large intestine. According to Henriot, one of the most frequent characters of this variety of typhoid is the rapidity with which the patient takes on a cachectic, even a choleraic, appearance, becoming rapidly adynamic and delirious, while bedsores are extremely liable to supervene. The prognosis of these cases in which the ulcer affects the large intestine is very grave, the author quoting only two instances in which recovery took place. He believes that the cause of this high mortality is the frequent and severe diarrhœa.—(*Journ. de Med.*)

Fochier's Abscesses in Typhoid Fever.—Dr. Revilliod agrees with Chantemesse's definition of typhoid fever as "a general disease caused by the reaction of the organism attacked by the typhoid bacillus." Therefore, if the presence of Eberth's bacillus is proved, it is pathognomonic of typhoid fever, even if the clinical signs are against this diagnosis. Details are given of two such cases. (1) Girl, aged 17. Had become pale, and the urine had been noticed to be dark for some weeks. On admission there were no abdominal symptoms except splashing over the stomach, and slightly enlarged spleen. Urine was rose to coffee-coloured. Red corpuscles and granular casts were seen by the aid of the microscope. Urea 18.5 per 1,000. Albumen 0.25 per 1,000 to 5, which latter proportion existed at the end of the twelfth week. From January 20 to the end of February pus was present also. Temperature was hectic; never above 102.75° F., and after the end of the sixth week of disease apyrexial, with one or two exceptions. The onset of the disease was with severe headache and vomiting, followed by a rigor. The headache was possibly migraine, to which she was subject, and quickly went, but the vomiting continued to the seventh week of illness (? uræmic). Epistaxis occurred twice during fourth week. She was constipated at first, but diarrhœa followed the use of purgatives. Great emaciation and asthenia. No typhoid facies or nervous complications. At the end of the fifth week phlegmasia alba dolens began in the left leg, coincidently with the pus in urine. At the same time it was discovered that the right kidney was enlarged. The diagnosis then made was enlarged movable kidney with dilatation of stomach. At the beginning of the fifth week (January 23) a subcutaneous injection of 1 gm of turpentine was given, with a view to produce an abscess. (Fochier's *abcès de fixation.*) From February 14 the swelling of kidney and leg began to subside, and the patient was convalescent on February 27, the improvement coinciding with the formation of local abscess. In April there was no trace of albumen. D'Espine examined the urine and the pus from Fochier's abscess, and found they contained Eberth's bacillus. (2) Boy, aged 9. Sudden onset on November 20, with headache and nausea. November 22, epistaxis; 24, temperature 104° F., diarrhœa; 26, admitted to hospital. On the sixth day of disease patient had characteristic appearance of meningitis with cries, retracted abdomen, stupor, *tache cérébrale*, etc. No symptoms of typhoid fever, but the state of the spleen was not noted. Pulse 150; temperature very irregular and not characteristic. As patient was going from bad to worse, a subcutaneous injection of turpentine was given on November 28. This had no effect, so another was given on December 2. Then improvement set in. As the meningitis disappeared, general œdema with ascites and synovitis without albuminuria began. Rapid emaciation. Convalescence established at the end of January, and patient went out cured. On December 29 the abscess resulting from the turpentine was incised, and the pus examined bacteriologically by D'Espine, who obtained pure cultivations of Eberth's bacillus. The only point clinically against a diagnosis of tuberculous meningitis and peritonitis was the favorable termination.

The conception of disease caused by Eberth's bacillus must be enlarged, as the clinical manifestations may vary, as they do in disorders caused by the pneumococcus and streptococcus. Revilliod believes that the bacilli in the above cases were localised in the kidney and meninges respectively. Abscesses caused by turpentine injections until now have proved sterile, but while some micro-organisms—for example, pneumococcus—are destroyed by turpentine Eberth's bacillus is resistent to it. They are evidently a most important aid to diagnosis in doubtful cases, but, before all, their aim is therapeutical, especially when pus is being formed, and it was on this hypothesis that they were given in these cases. However, the author attributes their recovery greatly to Fochier's abscesses.—(*Rev. Méd. de la Suisse Rom.*)

Pathology of Addison's Disease.—Prof. Hansemann states that diseased suprarenal bodies have been found in only 88 per cent. of the cases clinically recognised as Addison's disease. Hence a primary lesion in the solar plexus, splanchnic nerves, and spinal cord had been sought for, yet the lesions found in these structures have been so slight as hardly to be sufficient to account for Addison's disease, and they are even less constant than those found in the suprarenal bodies themselves. On the other hand these glands have been found quite destroyed without the appearance of Addison's disease. The author himself quotes a case in which they were entirely disorganised by secondary new growth without the symptom complex of the disease in question. Then there are cases of Addison's disease where the suprarenal bodies have been intact, but perhaps the changes in cells are hardly well enough known to speak with certainty on this point. The relation of Addison's disease to the suprarenals is very much the same as that of diabetes to the pancreas. A simple aplasia of the suprarenals has been known to occur where all the elements of the healthy gland are present, yet in too small a degree. This aplasia has a definite relation to defective development of other parts of the body, as the author has seen in 8 cases of anencephaly. There is never any trace of Addison's disease in this aplasia. The author records a remarkable case of Addison's disease in which the suprarenals were about the usual size, yet the cortical substance of the glands was proved both by the naked eye and the microscope to be absent. There was some evidence of a slight inflammatory lesion present, yet it could not be determined with certainty whether the changes were the result of a progressive pathological process or of a defective development. No lesion was found in the solar plexus, etc., and there were no changes in the rest of the body. Here the absence of the cortical substance in the suprarenals must have been the direct cause of Addison's disease.—(*Berl. klin. Woch.*)

Diphtheria Antitoxin Fatalities.—Dr. Gottstein has been induced by the Langerhans case to collect references to deaths under, and presumably from, the antitoxin treatment of diphtheria. These fall under two headings, according to whether the patient was actually suffering from diphtheria, or whether it was inoculated as a preventive measure or when suffering from a throat affection which turned out eventually to be non-diphtheritic. In both these categories there are elements of difficulty. In the first it may be uncertain as to whether death resulted from the disease or the remedy; in the second the fatal issue may have been due to latent diphtheria or some other grave affection. It must also be remembered that many of the cases which recover develop complications due to the antitoxin; out of 1,805 such recoveries (in 2,228 cases) recorded in Berlin during the first quarter of 1895, 420 showed exanthemata or other signs arising from the antitoxin, a total of 23 per cent. Gottstein enumerates 14 cases in which diphtheritic children appeared to have died from the effects of antitoxin, and 4 in which diphtheria was excluded, but the child nevertheless succumbed. He comes to the conclusion that in a certain definite number of cases, not confined to patients suffering from diphtheria, the injection of antitoxic serum has been rapidly followed by fatal collapse. He considers that in spite of the large number of cases which recover without any after-symptom, the fatal instances show that diphtheria antitoxin is a more or less dangerous remedy, often leading to the symptoms of poisoning by fibrin ferment. He considers also that the proportionate danger is greater than that with chloroform, since the latter is at any rate certain in its action, whereas the serum often fails altogether, while its immunising power is most variable.—(*Therap. Monatshefte.*)

Neurasthenia.—De Fleury sums up his views of neurasthenia under the following headings: (1) *Intervention of the cause.* This consists of excessive expenditure of motor activity or overwork by excess of sensory impulses. Under the latter head, excess of mental work, etc., various changes in the peripheral organs are placed. (2) *Reaction upon the nerve centres.* Especially in the presence of a neuropathic tendency, the above-named causes bring about a depressed vitality in the cells of the cerebral cortex. (3) *Loss of tone in the muscles and glands.* Many of the symptoms of neurasthenia are to be referred here. Neurasthenia is essentially a malady of weakness, consisting chiefly of muscular debility, poverty of the secretions, diminution of nutrition. (4) *Modification of the mental state.* When the above-named bodily changes occur, alterations in the mental state, such as timidity, fear, humility, idleness, melancholy, supervene. The sensations conveyed from the altered periphery convey also to the central nervous system a sense of exhaustion, and this is the manner in which cerebral neurasthenia arises. As to treatment, neurasthenics are not open to suggestion in the same sense as hysterical subjects. Mechanical treatment, as by the douche, baths of various temperature, statical electricity, massage, etc., is the most successful. The injection of non-poisonous fluids (Brown-Séquard's testicular fluid, etc.), sometimes useful, does not produce its good effects by any chemical or specific action. The author then discusses the action of these measures under (1) changes in the muscular system; (2) changes in the glandular apparatus, especially the digestive organs; (3) changes in nutrition; and (4) changes in the mental state. He draws attention to the importance of not overdoing the treatment, for in this way the disease may be aggravated. The author then refers to the various views which have been put forward to account for neurasthenia—namely, auto-intoxication, enteroptosis, vaso-motor changes, etc. There is an exhaustion or state of defective nutrition in the cerebral cells as in those in all other parts of the body.—(*Rev. de Méd.*)

Neurasthenic Angina Pectoris.—Rendu reports the case of a man, aged 40, of robust appearance, notwithstanding that he had suffered from typhoid, malaria, and yellow fever, but with good health for the last five years, who was attacked by influenza. After this he began to suffer from peculiar attacks consisting in a kind of crisis arising in the little finger, extending up the arm, and finally becoming more marked, accompanied by feeling of oppression and agony, with, on some occasions, syncope. After a short period in hospital these attacks became somewhat better, but returned, recurring daily. There was no physical sign of either heart or lung disease. Rendu considers the diagnosis in this case one for reflection as to whether it were a case of true angina pectoris or not. In the case in question, as there were no signs of cardiac affection, as angina is uncommon up to the age of 40, and as the pain began peripherally, the author was rather inclined to deny its being true angina pectoris. The previous history of influenza would also, he considers, be in favor of the less grave condition; and as the patient also suffered from headache, sleeplessness, and dyspepsia, the conclusion come to was that the case was simply neurasthenic. On these grounds the man was treated, with the result that the attacks rapidly subsided, and the general health was restored.—(*Journ. de Méd.*)

Etiology of Infantile Tuberculosis.—Kempner agrees with those who regard the tuberculosis of infants as the result of post-fœtal infection, and formulates his view as follows: Tuberculosis in infancy is congenital in only the rarest cases; in by far the greater number it depends upon post-fœtal infection, accompanied and assisted by an inherited predisposition in the first place, and an acquired predisposition in the second. He bases his conclusion on the following facts: (1) Only few certain cases are known of intrauterine transmission of tuberculosis amongst man and animals. (2) The comparatively small mortality from tuberculosis in the first year of life. (3) The fact that tuberculosis in childhood especially originates from disease of the bronchial glands, while in the rare cases of fœtal tuberculosis the bronchial glands are either not affected at all, or only slightly affected. Lastly, from the result of investigation of foundling hospitals. In France, out of 18,000 children, only 20 were found to be tuberculous, and in St. Petersburg the proportion was very similar. The parents of these children must have been tuberculous in a higher proportion.—(*Munch. med. Abh.*)

DRS. C. A. CLINTON, WASHINGTON DODGE and ROTTANZI were elected as Supervisors of the City and County of San Francisco, at the recent election.

TRANSLATIONS FROM FRENCH AND SPANISH MEDICAL LITERATURE.

By W. L. ADAMS, M. D., Palo Alto, Cal.

A Study of Hysteric Fever.—Manel Crouzet (*These de Paris*, 1895), says of the fever of hysteria:—This form of fever really exists, but all classifications of its various types that have been attempted are entirely conventional. Its chief characteristic is to have, one might almost say, no characteristic—no well-marked and distinctive types. Hysteria—the great neurosis—is capable of perfectly simulating every nervous or visceral affection, and simulates, also, fever in all its clinical forms. We may find this fever complicating different pseudo-diseases of viscera, pseudo-peritonitis, pseudo-pulmonary disease, pseudo-malarial fevers, etc.; or it may exist without apparent or discoverable physical basis—the true hysteric fever. In this latter form it usually follows emotions, disappointments or worry. The thermic and sphygmographic curves present no regularity whatever, nor any relation to each other. One phenomenon alone appears constant, that is *the absence of wasting*. In direct opposition to what is found in other fevers, the excretion of urea is diminished. Thus, as the author says, we may detect this form of fever by its chemical formula. In conclusion M. Crouzet proposes that hysteric fever be considered as the "thermic equivalent" of an ordinary attack of convulsive hysteria.—*Cronica Médico-Quirúrgica de la Habana.*

Typhoid Lesions of Large Intestine.—J. Henriol, in his *Thése de Lyon*, 1895, describes the lesions of typhoid in the colon and their influence upon the course of the disease. He says:—Generally the diagnosis of the predominance of the typhoid lesions in the colon is difficult, and typical cases are rare. But when we have a well-marked case of typhoid ulceration of large intestine, we may recognize it by a conjunction of symptoms that should put us on our guard—for the prognosis of this form of the fever is very grave. In the first place, the diarrhœa is profuse (at least light evacuations during twenty-four hours), the stools are extremely fetid, are often passed without the knowledge of the patient, and are generally more watery *and less deeply colored than* the usual typhoid stool. Second: The meteorism is excessive. This symptom by itself is valueless because often found where only the small intestine is affected. Third: Pain is found sometimes localized in one or more points along the course of the colon, sometimes extending over its entire length. This symptom almost invariably accompanies ulceration, but sometimes it is necessary to search for it by means of pressure over the abdominal wall, as the patient does not always complain of pain. Fourth: The general condition is always very bad—adynamic or ataxic.—*Cronica Medico-Quirúrgica de la Habana*, June, 1896.

Experimental Researches in Appendicitis.—Mm. Roger and Josué, in the June number of the *Revue de Médecine*, write that one experiment only was uniformly successful in producing appendicitis—that is, the complete ligature of the appendix. It is necessary to transform the cul-de-sac into a closed cavity. As long as the lumen of the appendix remains pervious, no matter to what degree it may be constricted, there is no inflammation. Even the introduction of a ball of wax of considerable volume was without effect, as the contractions of the appendix were of sufficient force to expel it. What is the mechanism of suppuration in these cases? It cannot be explained by an increase in the virulence of the microbes; nor by their penetration into the intestinal wall, for some are always to be found there. But it is because the pyogenic microbes act by means of the soluble matters that they secrete, matters that in the normal state are removed from the cavity of the appendix as soon as formed by the germs that may be inhabiting that part of the intestine. They are removed by the intestinal secretions and peristalsis. But if obstruction is complete there is accumulation and stagnation of the toxins; and the experiments of Poliakoff have shown that their action is strongest when formed and poured into the organism slowly and progressively.

Thus we see that pyogenic germs may be normally present in the appendix without causing inflammation; that even the presence of foreign bodies is not of itself enough to set up appendicitis as long as the outflow of toxins is not interrupted; and that it is the diffusion of these toxins into and through the intestinal wall that is the cause of the disease.

The Plague and Its Anti-toxin.—At a recent meeting of the Academy of Medicine, M. H. Monod informed the members that the French Consul at Canton had notified the Minister of Foreign Affairs that Dr. Yersin had injected the anti-plague serum into a Chinaman gravely affected with the plague, with absolute success. The following details of the treatment are at hand: M. Yersin injected the serum three times, the first at five o'clock in the evening, the second at six o'clock, and the third at nine o'clock at night. Immediately after the first injection the patient had a severe attack of vomiting—a common symptom in plague. At six o'clock the general condition had improved. At half-past seven the temperature had risen, there was restlessness with pain and diarrhœa. At nine o'clock fever was high and patient delirious. Up to midnight the patient had disturbed sleep and suffered pain in the sites of the injections. From midnight on the improvement was constant. At six in the morning the patient awoke without fever, in full possession of his faculties. The buboe was no longer painful and had decreased in size. By noon the axillary induration had disappeared and the only trace of the disease was a ganglion the size of a bean. The localities where the injections had been made were still painful. Three days after the injection the patient was discharged.

Since then M. Yersin has telegraphed to M. Brouardel that out of twenty-seven cases in which he had made use of his antitoxin twenty-five were cured.

Treatment of Diabetes and Obesity by Electricity.—M. d'Arsonval lately made to the Academy of Sciences an important communication concerning the treatment of these conditions by means of rapidly alternating currents. After having shown that in animals these currents increase in enormous proportions the activity of the organic combustions, the author thought of applying them in the treatment of those particular diseases characterized by diminution of the nutrition—those diseases so well studied by Professor Bouchard. Such are rheumatism, gout, obesity, certain forms of diabetes mellitus.

M. d'Arsonval's observations have been made upon two patients suffering from diabetes, and one case of obesity, all in the service of Dr. Charrin at the Hôtel-Dieu.

In the first place all sensations and subjective phenomena on the part of the patients were eliminated, so as to take into account only those physical and chemical modifications that were exactly measurable. This excludes any possible effects due to suggestion. The author measured the toxicity of the urines, estimated the amounts of sugar contained therein, recorded the variations of pulse and blood pressure, fluctuations in weight, etc.,—all phenomena uninfluenced by suggestion.

The first patient was a diabetic, thirty-three years of age, passing twelve litres of urine containing six hundred and twenty grammes of sugar every twenty-four hours. The toxicity of this urine, due to the normal poisons eliminated in it, was very feeble; two hundred and fifty grammes of it injected into a rabbit affected the animal to only a very slight degree. The blood pressure was barely fifteen centimeters of mercury. After six weeks of treatment consisting in ten minutes of electrization daily, the quantity of urine fell to less than six litres in twenty-four hours, containing one hundred and eighty-two grammes of sugar; the arterial pressure had raised to twenty-five centimeters; the toxicity of the urine had so increased that sixty-four grammes would kill a rabbit. An œdema of the legs that had existed at the beginning of treatment had disappeared. The same beneficial results were obtained in the second case,—a woman suffering from diabetes, who at the commencement of the treatment passed one hundred and thirty-eight grammes of sugar daily, and now passes only thirty-eight grammes.

As for the case of obesity—the patient weighed three hundred pounds,—after a few days of treatment the quantity of urea eliminated in twenty-four hours—nearly thirty-four grammes—had increased by twenty-five per cent. But shortly afterward the patient complained of attacks of suffocation, the urea fell to twenty-four grammes daily elimination, the pulse rose from seventy-two to one hundred and eight pulsations per minute, and the treatment had to be suspended. After two weeks rest it was resumed, but a return of the same unfavorable symptoms occurred, and it was found that the patient had an organic disease of the heart, previously undetected. The changes produced in the circulation by the use of these currents were too pronounced to be supported by this case.

At the close of his communication M. d'Arsonval exhibited to his colleagues the apparatus used by him at the hospital to produce these remarkable currents. He passed them through his own body, and showed that an incandescent lamp could be lighted by their means after their passage through the body, although not the slightest sensation was experienced by the person making the experiment.

DR. C. H. CASTLE, of Merced, was elected Congressman at the last election.

blindness. This fad has received its impetus only through the statement of Edison, that within three years the blind, those whose optic nerve is not destroyed, will be able to see. The hopes of many thousands of unfortunate blind, that they may be made to see, have suddenly been raised to a high pitch. Every newspaper in this country has exploited this statement in startling head-lines. A physician in this city claims priority for this *discovery*,—as time goes on and its futility as a cure for blindness is demonstrated, we believe that he will not be so eager to be called a discoverer. It was claimed that a blind boy had been materially aided, enough in fact, so that he saw objects. It has been proven that previous to his exposure to the X-ray he had as much vision as after the test; and that the impression upon his eyes from the fluorescent screen, to which he was exposed in a very dark room, was precisely the same, no more or less, that he experienced when exposed to light from any other illuminated body, incandescent lamp or gas.

Nov. 18th six children from the Blind Institution in Berkeley were brought to the Waldeck Laboratory for experimental purposes. Before being placed in front of the fluorescope each eye was carefully examined with the following results: Three children have optic atrophy; one totally blind, the other two have perception of light enough to make out the form of large objects held within a foot of the eyes. A fourth child has total blindness, due to partial destruction of the anterior portion of both eyes from an explosion of dynamite. A fifth child has double cataracts with probable partial optic atrophy. There is a faint perception of light. The sixth child is totally blind from ophthalmia neonatorum. We have then three children totally blind and three with small perception of light. The result of the exposure to the X-rays was only what should have been expected. The three children totally blind remained in the same condition, experiencing no sensation of light. Those who had a dim sensation of light when exposed to the rays from the fluorescent screen, were also able to see equally well when exposed to the light from the sun, incandescent lamp, or gas. Without the screen no sensation whatever was experienced.

Since we know that the eyeball is, like bone, opaque to the X ray, and as the retina in health is unable to perceive any sensation of light from the rays before it has been made visible by fluorescence, we should hardly expect an optic nerve wholly or partially atrophied to respond to an excitation too weak for the normal eye to perceive. To restore vision to a blind eye by exposure to these X-rays there must be some action which will cause a regeneration of the atrophied fibers or dissolve opacities lying between the nerve and the anterior surface of the eye. Electricity applied to even a sightless eye may cause flashes to be seen, but the sensations are purely subjective, exactly as the sensations of light which sometimes occur in a person who has lost both eyes by enucleation. This whole business is a delusion and a snare. Mr. Edison has made a serious mistake in permitting his name to be used as he has to foster hopes which can never be realized. Until he has submitted positive proof in place of the bald assertion that the X-rays possess curative properties in any degree, he should be silent on the subject. It must be borne in mind that there is not a particle of difference, as far as the perception of light by the retina is concerned, between the vibrations which come to it from the fluorescent screen or those of any other illuminating point of like intensity having the same wave lengths.

Instead of the X-rays having curative power there seems to be on the contrary, an impression that these rays may produce harmful results. The way we run after fads at the present day would almost warrant us in accepting Nordau's views on degeneration. However, we have hopes that a time will come when we shall turn over to experts all new discoveries, or alleged discoveries, of sure cures for disease for thorough examination and trial. We may have to wait until such time as faith in the power of the forked stick to point out the hidden veins of water and mineral give place to scientific methods, but it is bound to come in the fullness of time.

HEBREW PHYSICIANS AT MOSCOW.

It would seem that the Russian authorities think it may be possible for Hebrew scientists to attend the Medical Congress at Moscow next summer. It does not seem probable, however, that Hebrew physicians will subject themselves to the surveilance of Russian police; their scientific enthusiasm will not carry them over the Russian border. Orders have been sent by the foreign Ministers to Russian Consuls and Ministers in foreign countries to the effect that the passports of all persons going to the Twelfth International Medical Congress at Moscow must be *viséd* without regard to sex or sect. It seems rather incongruous for an international scientific society to meet in a country that requires the scientist to arm himself with a last century passport in order to attend the congress. To be sure, the scientist may consider himself a missionary and Russia the country in most need of a scientific congress.

INVESTIGATIONS BY THE BOARD OF HEALTH.

Judging from what appears in the daily papers the San Francisco Board of Health has got its hands full investigating Dr. Stahle, Superintendent of the County Hospital, and Mr. Dockery, inspector of milk. Complaint is made that Dr. Stahle permits bodies to be removed to the undertakers without even a rag for a covering. Someone has also entered a complaint that he and his family get more than they are entitled to from the establishment, in food and general supplies. Then Dockery has been accused of taking bribes from milkmen who are thus protected in their villainy in distributing impure milk to their customers. From what we know of the work done by both of the accused we have the very strongest belief that they will come out of this investigation unscathed. From all that we can learn Dr. Stahle has certainly faithfully performed his duties as Superintendent of the County Hospital. To us it looks very much as though malice on the part of some person or persons was at the bottom of this affair. We base our opinion partly on the fact that every superintendent of this institution has been under fire during the course of his administration, and he has generally come to grief through the testimony of discharged employees or dissatisfied patients. If a vacancy is desired it is usual to make it by having charges of incompetency brought forward. This is supposed to remove the impression from the public that politics had anything to do with it. Every person who has followed the course of the authorities in their action towards this and other institutions know only too well that politics is the prime factor in creating or filling vacancies.

If the Stockton papers are to be believed there is soon to be a general shaking up in the San Joaquin County Hospital. The superintendent is charged with irregularities of some kind and is to be investigated. Just what the charges are we have not learned, but it looks to us as though politics was behind the movement to create a vacancy in this institution. Until the Boards of Health in the cities and counties of California are kept from the control of politicians these "shake-ups" are bound to come periodically. In too many cases the testimony of inmates, whose word under ordinary circumstances would have but little value, is accepted as equal to that of the superintendent himself; more than one position has been made vacant by such evidence. Anybody who knows anything at all about county poor-houses and infirmaries must acknowledge that the position of superintendent is one of the most difficult places to fill. This is owing to the character of the inmates, a great many of whom are totally irresponsible persons who would rather lie than tell the truth. Malice and desire for revenge for imaginary wrongs frequently fig ure as the motive for turning a public institution inside out. We have a Board of Health in San Francisco at the present time which evidently means business. They are unanimous in their determination to provide the people with pure milk. Their efforts have been so successful that they are now supported in their crusade by all the better class of dairymen.

We are confident that the Board will make this investigation into the scandal hanging over the County Hospital, and the accusation of blackmail against Dockery, a most searching one. We want the public to be satisfied that no attempt is being made to shield any guilty official. In the good work the Board of Health is engaged in, they should have the cordial support of the medical fraternity of this city. Pure food, good sewerage, good roads, etc., are necessary and must be had before we can claim to stand in the front rank of modern up-to-date cities.

KLEPTOMANIA.

The attention of the profession and people of the United States and California in particular has been called to this mental condition, by the case of the unfortunate Mrs. Castle. Mrs. Castle's light sentence and almost immediate pardon were, no doubt, due to the opinion of Dr. Savage that she was a kleptomaniac. We know of no alienist whose opinion is entitled to greater respect. A great many people, especially among the poor, think that kleptomania is a fine word invented to apply to rich folk who take to shoplifting; when pook folk are caught at shoplifting they are called thieves, and are treated accordingly. Thieves invariably steal what they can readily convert into money or what they can find practical use for. Kleptomaniacs steal from an impulse to steal, not to sell or use the stolen articles. They will often steal and hide away the most useless trash. Who knows but the air of London and Paris contain the bacillus kleptomaniæ, for surely these two cities develop more kleptomaniacs than all the other great cities combined. It is part of the regular business of the police of these two cities to look after shoplifters, they have their special methods of dealing with them.

PERSONALS.

Dr. Charles Lewis, of Pittsburg, is visiting San Francisco.

Dr. C. C. McGovern died at his home in this city on October 30th.

Dr. Clement Biddle, U. S. N., of Philadelphia, is visiting this city.

Dr. G. R. Bowles, Second Assistant Physician at Napa Insane Asylum, was removed from his position by the Trustees at the last meeting of the Board for an unprovoked attack upon Dr. Gardner, Resident Physician.

Dr. G. L. Fitch addressed a communication to the Supervisors requesting them to assist in getting up a petition to Congress from each county, asking for an appropriation sufficient to establish a national lazaretto.

An attempt is being made by a number of benevolent ladies to found a children's emergency hospital. It is proposed to run the hospital in connection with the Society for the Prevention of Cruelty to Children.

Dr. Jno. B. Hamilton, editor of the *Journal of the American Medical Association*, has resigned from the Marine Hospital Service, U. S. A., on account of a pre-emptory order removing him to San Francisco. Dr. Hamilton's course is unanimously endorsed by the medical press, and the *Journal* is certainly to be congratulated.

Proceedings of Societies.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

The regular meeting of the San Francisco County Medical Society was held October 13th, 1896, the President, Dr. W. Fitch Cheney, occupying the chair. The minutes of the previous meeting were read and, on motion, adopted.

Under the head of applications for membership the following names were handed in: Dr. Benj. F. Korts, a graduate of Cooper Medical College, 1895, proposed by Dr. J. H. Barbat and Dr. F. B. Carpenter; and Dr. C. E. Boynton, a graduate of School of Medicine, University of Syracuse, N. Y., 1888, by Dr. Chas. C. Wadsworth and Dr. F. B. Petrie. These were referred to the Committee on Admissions.

The report of the Committee on Admissions upon the credentials of Dr. Frank Donaldson and Dr. Mary Waterhouse-Grant was satisfactory, and upon ballot they were duly elected members of the Society.

DR. FRANK DONALDSON read a paper on

The Treatment of the Singing Voice, with Remarks on the Intrinsic Movements of the Vocal Cords.

[Which appears in this number of the JOURNAL]

In opening the discussion DR. GRAY said: This paper has been an excellent one, the facts being so clearly set forth. As a matter of fact the views of Holbrook Curtis are receiving their just attention and the voices of singers, profiting by them, are getting finer and purer tones. It also shows that some of the pathological conditions which we are called upon to treat are due to an improper use of the voice. The use of a stretched membrane has been a laboratory study for a long time. It is convincing and sets forth facts; and because it is artificial it cannot be said to be of no account.

DR. HODGHEAD: This question is one that greatly interests me as it has been one of special study for me for years. I am indeed glad to see that it has been taken up by the medical profession and in such an able manner. We have to study the subject from two standpoints: Theoretical (the medical) and practical (the teachers'). In studying the subject the first thing I noted was the confusion of methods, every teacher was a law unto himself, and to-day practically the same condition exists.

I have studied both here and in Europe and I have never yet found two to agree. Vocal music has been taught from an empirical standpoint. We should reduce it to a science and study it medically from an anatomical and physiological view, and the use of the sounding cavities. One question referred to by Dr. Donaldson is *rest* of the voice. In one way he is correct. However, for comparison, we will take one who rides a wheel for the first time violently. The result is great bodily soreness which will disappear in a week or two if no more riding is done, to finally come back as bad as ever if further riding is indulged in. Now, if on the next day the soreness is disregarded and further riding done, followed daily by other rides, the soreness will vanish not to return. The use of the vocal cords is on the same lines, except in pathological conditions. If the hoarseness is the result of a simple mistake in the use of the voice no gain is made by rest, but is by exercise given in the proper way. I believed for a long time that the so-called "clergyman's sore throat" would vanish under proper exercise. The trouble is that clergymen and public speakers go before the public and use their voice before ever it is cultivated, or the organs which produce it. I believe that every public speaker should cultivate his vocal powers just as a singer or any other accomplishment is cultivated. The voice then could be handled to better advantage and with less liability of wearing out. As I said, I am glad to see this subject taken up before the medical fraternity and believe that every throat specialist should cultivate his own voice also, that he may easier understand the explanation given by the singer; and he would then combine the *theoretical* with the practical side.

Dr. Chas. G. Kuhlman: Adverse criticism is the spice of life, and inasmuch as no one has seen fit to criticize Dr. Donaldson's paper adversely, I will take occasion to do so myself. While I will concede that the paper is scientific in so far as it goes, still I will by no means concede that it is complete, or does justice to this subject, as the author makes no mention whatsoever of congenital conditions and nervous influences which play so important a role in abnormal phonation, or note production. To limit the causes to the pathologic changes that follow acute "colds" as the author has done to-night, is hardly doing the subject justice, as there exists an immense literature descriptive of congenital and nervous conditions—various neuroses as it were—that influence note production. The object of my remarks is to call the author's attention to the defects in his paper so as to have him look up these subjects for future reference.

Dr. Donaldson: I am well aware of nerve influences all over the body, but there are none that produce these voice changes. As to hereditary defects I know of no case due to such a cause. It was not my idea to go into all these minor points. I did not mention tuberculosis. What does the doctor mean by paralysis? 99 out of every 100 is a paralysis of the abductors of larynx, the vocal cords being in extreme expiratory phraze. I recorded in 1887 a case where the cords were in the middle line.

Dr. E. E. Kelly and **Dr. J. H. Barbat** exhibited some interesting specimens of

Dermoid Cysts,

with the pathological specimens and remarks.

Dr. E. E. Kelly reported the following history of a case. The patient, a maiden lady 42 years of age, occupation servant maid. Up to 6 years ago she was practically well with a normal menstruation; gradually more pain occurred, with scanty flow, and a pain on the right side. The pain increased until it became practically constant. She now went under treatment in Oakland for "catarrh of the womb" as the doctor there said, with a certain degree of success; still she had to secure a lighter position. A year ago she was treated by an Alameda physician who told her she had a tumor of the right ovary with some on the left, and advised ovariotomy, and removal of the uterus also. Patient hesitated and finally three weeks ago she came into my office. On examination I found a tumor of the left ovary the size of a closed fist, or larger. The uterus seemed flexed to the right side, and I could not make out whether the right ovary was affected or not. I advised removal. A week ago another examination was made by Dr. Carpenter and myself. Dr. Carpenter felt a hard substance in the lower part of the tumor which he thought was bone, and that the tumor was a dermoid cyst. The patient was operated on a week ago Monday at the Waldeck with the aid of Dr. Cooper and Dr. Carpenter. Unlike the characteristic peritoneal adhesions of dermoids this tumor fortunately had none. Some authors say that these adhesions are a diagnostic sign. This tumor contained 12 ozs. of a fatty, cheesy material, but no bones, hair or teeth were found.

There are several theories as to the formation of these cysts.

One is the theory of nodal cells, that in the ovary are nodal cells that have the property of developing different cells. These remain quiescent until adult life, when they are lit up. Another theory is diplo-genesis, in which two separate beings are developed, and one embraces the other. Two ova develop at the same time, and one is included in the other, but as the cysts are as frequent on both sides nearly as on one it is hardly creditable that there would be two or three in one. Another theory is that of pathogenesis, some reversion type. That the ovarian tissue can develop certain structures within itself. It has been demonstrated that segmentation of an ovum can take place without impregnation. Some say they are inclusion cysts formed by the closing in of certain parts of the body, and are parts of the epiblast.

The PRESIDENT stated that at this meeting nominations for officers of the Society for the ensuing year would be in order and declared the nominations open.

The following nominations were then made:

For President, Dr. F. B. Carpenter; First Vice-President, Dr. E. G. Frisbie; Second Vice-President, Dr. J. F. McCone; Recording Secretary, Dr. A. P. Woodward; Assistant-Recording Secretary, Dr. F. B. Petrie; Corresponding Secretary, Dr. Lucy M. F. Wanzer; Treasurer, Drs. Whitwell and E. E. Kelly; Librarian Curator, Dr. D. W. Montgomery; Trustees, Drs. Henry Gibbons, W. F. McNutt and Chas. C. Wadsworth.

On motion of DR. KELLY, a committee of three (Drs. Kelly Barbat, and Frisbie) was appointed to make nominations for the various committees, which they did as follows: Committee on Admissions, Drs. W. F. Cheney, C. E. Farnum, Kate I. Howard, R. I. Rigdon, and Dudley Tait. Committee on Ethics, Drs. W. W. Kerr, W. A. Lewitt, G. B. Somers, H. M. Sherman, and L. M. F. Wanzer. Committee on Finance, Drs. G. F. Shiels, Washington Dodge, and C. G. Kenyon. Committee on Publication, Drs. D. W. Montgomery, Leo Newmark, and Frank Donaldson. Executive Committee, Drs. H. B. A. Kugeler, Edward Gray, G. H. Evans, G. C. Levison, and E. G. Frisbie.

DR. C. G. KUHLMAN submitted a series of resolutions against the medical contract system [published in the last number of the JOURNAL] which, on motion of DR. MONTGOMERY, was laid over to the next meeting.

There being no further business the Society adjourned.

The American Association of Obstetricians and Gynecologists.

The American Association of Obstetricians and Gynecologists, at its ninth annual meeting held at Richmond, Va., elected the following-named officers for the ensuing year, namely: President, James F. W. Ross, M. D., Toronto; Vice-Presidents, George Ben Johnston, M. D., Richmond, and John C. Sexton, M. D., Rushville, Ind.; Secretary, William Warren Potter, M. D., Buffalo, Treasurer, Xavier O. Werder, M. D., Pittsburg. Executive Council, Charles A. L. Reed, M. D., Cincinnati; Lewis S. McMurtry, M. D., Louisville; A. Vander-Veer, M. D., Albany; J. Henry Carstens, M. D., Detroit; and William E. B. Davis, M. D., Birmingham. The next annual meeting was appointed to be held at the Cataract House, Niagara Falls, N. Y., Tuesday, Wednesday, Thursday and Friday, August 17, 18, 19, and 20, 1897.

The Alvarenga Prize.

The College of Physicians of Philadelphia announces that the next award of the Alvarenga Prize, being the income for one year of the bequest of the late Señor Alvarenza, and amounting to about one hundred and eighty dollars, will be made on July 14, 1897, provided that an essay deemed by the Committee of Award to be worthy of the prize shall have been offered. Essays intended for competition may be upon any subject in medicine, but cannot have been published, and must be received by Thomas R. Neilson, Secretary of the College, on or before May 1, 1897. Each essay must be sent without signature, but must be plainly marked with a motto and be accompanied by a sealed envelope having on its outside the motto of the paper and within the name and address of the author. It is a condition of competition that the successful essay or a copy of it shall remain in possession of the College; other essays will be returned upon application within three months after the award. The Alvarenga Prize for 1896 was not awarded.

The Trustees and Faculty of the Department of Pharmacy of the University of California have decided to change the term of sessions from summer to winter, so as to be in accord with the Medical and Dental Departments.

A good Microscope for sale—price, $50. Apply at this office.

A new Gynecological Chair for sale, cheap. Pacific Medical Journal, 603 Sutter street.

Health Reports.

REPORT OF THE STATE BOARD OF HEALTH.

By J. R. LAINE, M. D., Secretary State Board of Health.

Deaths.—Reports from forty-four cities, towns, villages and sanitary districts, aggregating a population of six hundred and sixty-three thousand four hundred and thirty, show a mortality of eight hundred and eighty—a death-rate of 1.32 per thousand for October, 1896, or 15.84 per thousand per annum.

There were one hundred and forty-one deaths from consumption, fifty-eight from pneumonia, twelve from bronchitis, seven from congestion of the lungs, nine from diarrhœa, nineteen from cholera infantum, seventy-four from other diseases of the stomach and bowels, seven from diphtheria, four from croup, one from scarlatina, three from whooping-cough, twenty from typhoid fever, two from malarial fevers, twelve from cerebro-spinal fever, forty-four from cancer, eighty-three from diseases of the heart, four from alcoholism, and three hundred and eighty from all other causes, one of which was from la grippe.

Prevailing Diseases.—Reports of prevailing diseases from twenty-four localities outside of the larger cities and towns, give eighteen cases of pneumonia, seventy-four of bronchitis, eighteen of pleurisy, seventeen of congestion of the lungs, one hundred and sixteen of diarrhœa, forty-one of dysentery, nine of cholera morbus, sixteen of cholera infantum, three of diphtheria, nineteen of croup, nine of whooping-cough, ninety-one of la grippe, twenty-seven of typhoid fever, one hundred and ninety-eight of malarial fevers, one of cerebro-spinal fever, four of erysipelas, sixty-four of rheumatism, fifty-two of neuralgia, seventy of tonsilitis, and forty-five of pharyngitis.

Measles was reported epidemic at Watsonville and Etna Mills.

Dr. F. H. Payne, of Berkeley, on November 10th, was seriously injured by being thrown from his horse. He received a severe concussion of the brain, and has not, up to the present time, fully regained consciousness. His physicians, Drs. Eastman and Rowell, are sanguine that he will soon recover. Dr. Payne's numerous friends in Berkeley and vicinity are watching the progress of his case with great anxiety. We hope to be able to report that the doctor is on the road to full recovery in our next number.

The editors of *Mathews' Medical Quarterly*, Louisville, Ky., announce that with the January issue its name will be changed to *Mathews' Quarterly Journal of Rectal and Gastro-Intestinal Diseases.*" It will continue to be the only English publication devoted to diseases and surgery of the rectum and gastro-intestinal tract.

Literary Department.

Under the charge of W. F. McNUTT, M.D., M.R.C.S., Edin., etc.
Professor Principles and Practice of Medicine in the Medical Department
University of California, etc.

THE MEDICAL NEWS VISITING LIST FOR 1897. Weekly (dated, for 30 patients); monthly (undated, for 120 patients per month); perpetual (undated, for 30 patients weekly per year); and perpetual (undated, for 60 patients weekly per year). The first three styles contain 32 pages of data and 160 pages of blanks. The 60-patient perpetual consists of 256 pages of blanks. Each style in one wallet-shaped book, with pocket, pencil and rubber. Seal grain leather, $1.25. Philadelphia and New York: Lea Brothers & Co. For sale by the Book Department of the Emporium, Market St., San Francisco.

"The Medical News Visiting List" for 1897 has been thoroughly revised and brought up to date in every respect. The text portion (32 pages) contains the most useful data for the physician and surgeon, including an alphabetical table of diseases, with the most approved remedies, and a table of doses. It also contains sections on examination of urine, artificial respiration, incompatibles, poisons and antidotes, diagnostic table of eruptive fevers, and the ligation of arteries. The classified blanks (160 pages) are arranged to hold records of all kinds of professional work, with memoranda and accounts. The selection of material in the text portion and the arrangement of the record blanks are the result of twelve years of experience and special study. Equal care has been bestowed upon the mechanical execution of the book, and in quality of paper and in strength and beauty of binding nothing seems to be left wanting. When desired, a Ready Reference Thumb-letter Index is furnished, which is peculiar to this Visiting List, and which will save many-fold its small cost (25 cents) in the economy of time effected during a year. In its several styles "The Medical News Visiting List" adapts itself to any system of keeping professional accounts. In short, every need of the physician seems to have been anticipated in this invaluable pocket companion.

THE PHYSICIAN'S VISITING LIST FOR 1897. Forty-sixth year of its publication. Philadelphia: P. Blakiston Son & Co., 1012 Walnut street. For sale by the Book Department of the Emporium, Market street, San Francisco, and all other booksellers.

This visiting list is too well and favorably known to require either introduction or eulogy—its popularity increases with its years.

AN AMERICAN TEXT-BOOK OF APPLIED THERAPEUTICS. For the use of Practitioners and Students. Edited by J. C. WILSON, M. D., Professor of the Practice of Medicine and of Clinical Medicine in the Jefferson Medical College; Attending Physician to the Hospital of the Jefferson Medical College, to the German Hospital, and to the Pennsylvania Hospital, Philadelphia. Assisted by AUGUSTUS A. ESHNER, M. D., Professor of Clinical Medicine in the Philadelphia Polyclinic; attending Physician to the Philadelphia Hospital. Price, $7.00, $8.00 and $9.00. For ale by subscription only. Philadelphia: W. B. Saunders, 925 Walnut street. 1896.

This book is gotten up on the co-operative system. There are forty-two contributors, thirty-nine of whom are to the manor born, one Canada, one London, one Paris. An examination of the table of contents shows that the whole field of medicine has been pretty well covered, each writer taking up a subject with which he is familiar, or particularly interested in. The work is thoroughly practical and while it is intended for practitioners and students, it is a better book for the general practitioner than for the student. The young practitioner especially will find it extremely suggestive and helpful. The experience of older men is of the greatest value to the beginner. The article on malaria will give the American practitioners an opportunity to avail themselves of the experience of Laveran, who has made himself so famous by his research in this field. The book is up-to-date and full of practical suggestions. The paper and print are very satisfactory.

A TREATISE ON OBSTETRICS. For Students and Practitioners. By EDWARD P. DAVIS, A. M., M. D., Professor of Obstetrics and Diseases of Infancy in the Philadelphia Polyclinic, Clinical Professor of Obstetrics in the Jefferson Medical College of Philadelphia. In one very handsome octavo volume of about 700 pages, with about 200 engravings and many full-page plates in colors and monochrome. Lea Brothers & Co., Philadelphia and New York. 1896. For sale by the Book Department of the Emporium, Market street, San Francisco.

This work is more than its title claims for it. It is not more than a treatise on obstetrics should be, however, but teaches more than books on obstetrics usually do. It includes sections on repair of lacerations and injuries, on abortion, extra-uterine pregnancy, the puerperal state, infancy in health and disease, diseases of infancy, the jurisprudence of obstetrics. The author is widely known as a teacher, writer and obstetrician of unsurpassed ability. His thorough acquaintance with foreign literature has enabled him to place at the command of his readers the best material derivable from the vast sources of obstetrical knowledge of the old world, and his own ripe experience and metropolitan facilities have been equally well utilized in the preparation of the volume at hand. Fortunately for womankind the obstetrician is not often a mere specialist, he will consequently appreciate the broader field included in the book. The obstetrician who has to call a specialist to stitch up a cervix, or repair a perineum,' might do well to have left the case to more proficient and experienced hands. Its exceptionally rich series of illustrations embodies many engravings, photographically reproduced from obstetrical scenes, selected in view of the vividness and extent of knowledge thus conveyed. The work contains also no less than 30 full-page plates in colors and monochrome.

REPORT OF THE SECOND ANNUAL MEETING OF THE AMERICAN ACADEMY OF RAILWAY SURGEONS, held at Chicago, Ill., Sept. 25, 26, and 27, 1895 Edited by R. HARVEY REED, M. D., Columbus, Ohio. Chicago: Amer. Med. Assoc., publishers. For sale by the Book Department of the Emporium, Market St., San Francisco.

The report consists of 221 12mo. pages, classified in chapters according to the subjects treated of. The object of the Society is the betterment of railway surgery and of railway hygiene. Railroad managers are learning that a well organized system of surgical aid is not only necessary from a humane point, but a paying financial proposition. The suits for damages in cases of railroad accident are lessened, and fewer suits are successfully prosecuted, when prompt and intelligent aid is at hand. The chapter on the medico-legal aspect of railway surgery is an interesting one. The Academy numbers 116 members.

TREATISE ON APPENDICITIS. By JOHN B. DEANE, M. D., Surgeon to the German Hospital, Philadelphia. Containing 32 full page plates and other illustrations. 80c. cloth. Philadelphia: P. Blakiston, Son & Co. For sale by the Book Department of the Emporium, Market St., San Francisco.

While the craze for operating on appendicitis and supposed cases is dying down, it is nevertheless necessary that the general practitioner, as well as the specialist, should keep himself well abreast of the times in regard to this formidable and too often fatal affection. We can recommend this work as a carefully and intelligently prepared, and excellently illustrated work on the subject. The author takes up the whole subject from the history of the disease to its sequelæ, including treatment.

THE MEDICAL RECORD VISITING LIST, OR PHYSICIAN'S DIARY FOR 1897. New revised edition. New York: William Wood & Co., Medical Publishers. For sale by the Book Department of the Emporium, Market street, San Francisco.

This visiting list is becoming a favorite with physicians everywhere. This newly revised list contains much information that will be found useful, especially in emergencies.

OBSTETRICS, ACCIDENTS, EMERGENCIES AND OPERATIONS. By L. CH. BOISLINIERE, A. M., M. D., L.L. D., late Emeritus Professor of Obstetrics in the St. Louis Hospital; Consulting Physician to the St. Louis Female Hospital, and to the St. Ann Lying-In-Asylum; ex-President of the St. Louis Medical Society, and of the St. Louis Obstetrical and Gynecological Society, Etc. Profusely illustrated. Philadelphia: W. B. Saunders, 925 Walnut St. 1896. Price, $2. For sale by the Book Department of the Emporium, Market St., San Francisco.

This is a most excellent up-to-date manual. The student and new practitioner will, we are sure, appreciate the admirable and concise manner in which the author has succeeded in presenting the real essentials of these important branches of obstetrics in accordance with the latest and best teachings of the day. Until one learns by experience how to meet the accidents and emergencies of obstetric practice, he must depend upon such clear and concise instruction as this manual provides. The illustrations are well executed, and the printing and paper are excellent.

A MANUAL OF PHARMACOLOGY AND THERAPEUTICS. By WILLIAM MURRELL, M. D., F. R. C. P., Physician and Lecturer on Pharmacology and Therapeutics at the Westminister Hospital; late Examiner in Materia Medica in the University of Edinburgh, and Examiner in Materia Medica and Pharmacy to the conjoint Board of the Royal College of Surgeons of England and the Royal College of Physicians of London. Revised by FREDERICK CASTLE, M. D., Member of the Committee for Revision and Publication of the Pharmacopœia of the United States of America; Late Lecturer on Pharmacology at Bellevue Hospital Medical College; Physician to the Presbyterian Hospital. Editor "New Remedies," etc. New York: William Wood & Co. 1896. For sale by the Book Department of the Emporium, Market street, San Francisco.

We are always glad to see our publishers bring out a good English book, or a translation of a good German or French work. The medical profession of any country cannot afford to become either provincial or national. The science of medicine is as broad as the world, it must be international. The author of this work (Dr. Murrell) is a well known teacher and practitioner in the *great* metropolis, London, and we are happy to have the opportunity of recommending to our readers a book embodying his experience. He does not require an introduction to many members of the profession in this country, and to those who are unacquainted with his writing we cannot too highly recommend this work.

TRANSACTIONS OF THE FIRST PAN-AMERICAN MEDICAL CONGRESS, held in the City of Washington, D. C., U. S. A., September 5, 6, 7, and 8, 1893. In two volumes, octavo, 2,250 pages. Washington: Government Printing Office. 1895. For sale by the Book Department of the Emporium, Market St., San Francisco.

These volumes contain many very interesting and well digested articles by some of the best men in the profession on the hemisphere. Many of the articles are elaborately and beautifully illustrated. They will constitute a valuable addition to one's medical library. The Congress was important in many other respects than merely professional.

A PRACTICAL TREATISE ON MATERIA MEDICA AND THERAPEUTICS. By ROBERTS BARTHOLOW, M. A., M. D., LL. D.; Professor Emeritus of Materia Medica, General Therapeutics and Hygiene in the Jefferson Medical College of Philadelphia; Fellow of the College of Physicians; Member of the American Philosophical Society; Honorary Member of Société Medico-Pratique de Paris, and of various National, State and County Medical Societies; author of a Treatise on the Practice of Medicine, of a Treatise on Medical Electricity, of a Manual of Hypodermatic Medication, of the Russell and Jewett Prize Essays and Prize Essay of the American Medical Association, and of the Rhode Island Medical Society, etc. Ninth edition, revised and enlarged. New York: D. Appleton & Co. 1896. For sale by the Book Department of the Emporium, Market St., San Francisco.

This ninth edition makes its bow to the profession just twenty years after the first edition entered on the stage and asked for recognition. It is vouchsafed to but few medical books to be added to. enlarged, altered and edited for the ninth time. Publishers and reviewers might possibly fool the public into buying one edition of a scientific book, but only the merits of the book and the fact that readers find it helpful call for nine editions. The author has found it necessary to enlarge and alter this edition in order to "dispose of the new material which the rapid development of pharmacology has contributed to the science and art of therapeutics." Our readers will do well to give this old friend in its new dress a hearty welcome. We can assure them that while the author grows old in experience, he grows youthful in energy and enthusiasm.

IN SICKNESS AND IN HEALTH. A Manual of Domestic Medicine and Surgery, Hygiene, Dietetics and Nursing. Edited by J. WEST ROOSEVELT, M. D., Late Physician in charge of Seton Hospital for Consumptives; Visiting Physician to Bellevue Hospital and Attending Physician to Roosevelt Hospital, New York. Complete in one volume of over a thousand pages, illustrated with four colored plates and numerous engravings. Full Analytical Index. Sold only by subscription. Price, $6.00, in handsome cloth binding. Delivered to any address in the United States or Canada. D. Appleton & Co., publishers, 72 Fifth Avenue, New York.

In most houses is to be found a work on domestic medicine. There are mysteries about our professional life and the practice of medicine that have a certain attraction for the laity. Every man and woman to a certain extent likes to recommend remedies for his or her neighbor or friends or members of the family. We congratulate the children whose parents adopt this work as their "Family Medicine Book." For example we retain a very lively recollection of some of the doses that the old standby Buchan was wont to recommend. To compare Buchan's domestic medicine with this work shows what marvelous strides have been made not only in our profession but in the intelligence of the people for whom this excellent work is prepared. It will no doubt be found too scientific for many mothers, but for the great mass of well-educated and well-read families it is far away the best book of the kind that we have ever seen. Every intelligent person is taking much more interest in the laws of health and hygiene than he did only a few years ago. Health is more appreciated as capital, it adds to one's fortune, happiness and length of life. The work is admirably gotten up, on good paper and beautifully illustrated.

THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE RECTUM, being a Practical Treatise on Fistula, Piles and Fissure and Painful Ulcer, Procenditis, Polypus, Stricture, Cancer, etc. By WM. ALLINGHAM, F. R. C. S. Eng.; Ex-member of Council of the Royal College of Surgeons of England; Late Senior Surgeon of St. Mark's Hospital for Diseases of the Rectum, etc., and HERBERT W. ALLINGHAM, F. R. C. S. Eng., Surgeon to the Great Northern Hospital; Assistant Surgeon to St. George's Hospital; Late Assistant Surgeon to St. Mark's Hospital. Sixth edition. New York: William Wood & Co. 1896. For sale by the Book Department of the Emporium, Market St., San Francisco.

Our readers will be as pleased to learn that a new sixth edition of Allingham is issued as we are to announce it. The fifth edition has been out of print for some time and the work was being constantly called for. The ground work or plan of the book has been pretty well adhered to, but every chapter and every subject treated of has been brought up to date; that is, the text has been altered and rewritten to accord with the advances in surgery. The author has kept the practical constantly before him and has refrained from indulging in speculation. No better book has been written on the subject for the student and general practitioner. Few men have had larger experience in the treatment of rectal diseases than the author. His reasons for recommending special operative procedures are replete with good, plain common sense. He is governed in his selection of operative procedures by his vast experience and his recommendations are safe guides to the inexperienced. For the operation of inguinal colotomy he gives reasons for preferring chloroform to ether, and they are worthy of careful consideration. He recommends colotomy only in cases not suited to removal of the cancer, excision of the rectum for cancer is preferred to colotomy. The paper is good, illustrations numerous and marginal index. The work will no doubt have a very large sale, as it should.

THE management of the *Journal of Nervous and Mental Disease* announces the following arrangement of the staff for 1897: Editors, Dr. Chas. L. Dana, Dr. F. X. Dercum, Dr. Philip Coombs Knapp, Dr. Chas. K. Mills, Dr. Jas. J. Putnam, Dr. B. Sachs, and Dr. M. Allen Starr; Associate Editors, Dr. Philip Meirowitz and Dr. Wm. G. Spiller; Managing Editor, Dr. Chas. Henry Brown, 25 West Forty-Fifth street, New York, to whom address all editorial and business communications.

"CHRISTMAS in Several Lands" is the attractive title of a delightful symposium in the Christmas number of *Demorest's Magazine*, wherein the Christmas customs and the Christmas spirit in various countries are pleasantly described by persons who have had some part in them.

THE Christmas number of *Demorest's Magazine* presents a table of contents attractively suggestive of Christmas cheer, and a glance through the pages shows a profusion of pictures appropriate to the season and attractive enough to please at any time. The number opens with sketches of the Holy Land, very appropriately called "The Cradle of Christianity," written by Dr. Thomas P. Hughes, who has long been a student of that region, and writes from the observer's point of view. New and beautiful pictures are given, fully illustrating the article and making it a fine feature for a Christmas publication.

Therapeutic Notes.

Hydrozone in Gastric and Intestinal Disorders.

By JOHN AULDE, M. D., Philadelphia, Pa.

A period of nearly twelve years has elapsed since I first began the clinical use of hydrogen dioxide, generally referred to at that time as the peroxide of hydrogen. In 1887 I published a paper giving a detailed account of several cases in which it had been employed by inhalation, but even then I was thirty years behind the report of Dr. (now Sir) Benjamin Ward Richardson, of London, who had made a thorough investigation of its antiseptic, detergent, and healing properties. Notwithstanding the fact that this preparation had been known to the medical profession for that length of time it had achieved little or no reputation. This, however, may be explained by the fact that the discovery preceded the dawn of bacteriology. Indeed, I was one of the early contributors to medical literature relating to the clinical value of this product, and since that time I have published a number of articles, embracing practically every application, both medical and surgical, to which hydrogen dioxide is adapted.

In the present communication it is my object to direct the attention of the profession to its special value in the treatment of gastric and intestinal disorders. In gastritis, for example, there is no antiseptic which can be given with so much benefit as this remedy, because its effect is immediate, and even in considerable doses it is absolutely harmless. The same is true in regard to its employment in typhoid fever, cholera infantum, and Asiatic cholera. In the latter disease its efficacy has been thoroughly demonstrated by a number of well-known physicians, and its applicability in cholera infantum is well known to those physicians who have given careful attention to the most modern methods in the treatment of this class of cases.

The following brief notes will be sufficient to indicate the availability of this remedy in the treatment of the disorders already mentioned, although, in view of the fact that Hydrozone is a more concentrated product, and withal a permanent solution, this latter remedy should have the preference. It contains at least double the volume of nascent oxygen which has heretofore been the standard for the medicinal peroxide of hydrogen.

In gastritis, either acute, subacute, or chronic, we have to deal with an unhealthy condition of the lining membrane of the stomach. The inflammation is attended with an increased output of mucus, which seriously interferes with the normal functions of the peptic glands. By the introduction of a small quantity of Hydrozone, in the strength of one part to thirty-two parts of boiled or sterilized water, this objectionable mucus is at once destroyed by the action of the oxygen which is released, and the contents of the stomach remaining are promptly discharged into the small intestine. A patient suffering from gastritis should take at least half an hour before meals from two to four ounces of diluted Hydrozone (one to thirty-two) and lie on the right side so as to facilitate the action of the stomach in discharging its contents.* The antiseptic properties of Hydrozone thus used are sufficient to destroy the micro-organisms and leave the stomach in a healthy condition for the absorption of nutritive pabulum. All forms of fermentation are promptly subdued by the active oxidation resulting from the liberation of nascent oxygen. The patient is then in a condition to take suitable food, which should be nutritious and easily digested, liquids being preferred until the active symptoms have subsided. Later, small portions of solid food can be ingested, but all food stuffs of a starchy character must be thoroughly masticated, in order to secure the action of the salivary secretion upon the starch granules, breaking them up, and lessening the tendency to fermentation in the stomach. After taking a meal, a patient with gastritis should follow it with medicinal doses of glycozone, which contains, in addition to the nascent oxygen contained in Hydrozone, a percentage of glycerin which favors osmosis and assists in re-establishing the functional activity of both the peptic and mucous glands of the organ.

In the treatment of cholera infantum, typhoid fever and Asiatic cholera, the same general plan should be adopted in dealing with the stomach, always bearing in mind the necessity for having the patient remain in the recumbent position and on the right side for at least half an hour after the ingestion of the solution. In addition, however, to the preliminary treatment of the stomach, the same solution (one to thirty-two) is used as an injection into the lower bowel, care being exercised to insure its introduction as high up as possible. This can be managed by having the patient lie on the left side, with the hips well elevated, and the employment of a long, flexible rectal tube. In this manner we secure and maintain an antiseptic condition in both the stomach and large intestine, the importance of which will be understood when we consider the large number of micro-organisms which grow under these favorable conditions with such remarkable rapidity.

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*In chronic cases with a large output of gastric mucus, and particularly in gastric ulcer, concentrated solutions are not well borne at first, owing to the formation of oxygen gas, but this difficulty disappears with the continued use of the remedy, and no treatment of gastric ulcer can be regarded as complete without the local employment of Hydrozone.

When deemed advisable, the solution introduced into the lower bowel may be combined with large quantities of either hot or cold water, which enables us to obtain the benefits of irrigation in addition to the antiseptic effects. These irrigations may be employed as frequently as deemed advisable by the medical attendant, but they will usually prove satisfactory if administered at intervals of four hours.

Although brief, it is believed this communication will prove serviceable to a large number of practitioners who have hitherto found serious difficulties in counteracting the mephitic influences of bacteria in this class of disorders, and the clinical virtues of the remedy being now so fully recognized, no one will hesitate to adopt the methods suggested, which may be conveniently carried out in addition to the usual routine treatment. —*New York Medical Journal*, Aug. 15, 1896.

Pains in the Hepatic Region.

About eight weeks since I was called to see a patient of Dr. L.'s. We found her with excruciating pains in the hepatic region, constant vomiting with distress in stomach; in fact, could keep nothing down for a couple of days. Enlarged liver easily felt below the costal margin, very sensitive, so much so that we strongly suspected malignant disease. The symptoms were discouraging decidedly as the doctors had given her nearly every medicine used in hepatic diseases without relief. I suggested "Peacock's Chionia," it was given and she began to improve, and at this date is as well as usual. It certainly was an efficient remedy in her case, and the result deserves recording.

Battle Creek, Mich. F. W. BATHRICK, M. D.

Cod Liver Jelly.

Lehn & Fink are placing upon the market a prepared cod-liver jelly called ADIPOGEN which is a powerful stimulant to nutrition and assimilation, containing the entire active principles of the cod liver. Samples furnished free of charge by addressing Lehn & Fink, New York City.

Iron-Dyed Silk Ligatures.

We have received a shipment of Iron-Dyed Silk Ligatures from William Snowden Co., of 911 Walnut street, Phila., Pa. From considerable experience with the *genuine* Snowden make we can recommend it as the best in the market. It has several advantages over the white silk. In the first place, it is more readily seen, hence, the sutures are more easily removed; in the second place, the Iron-Dye renders the ligatures less irritating. It can more readily be sterilized, and by procuring the *genuine Snowden Iron Dyed Silk*, it will be found to possess greater strength than most kinds of whitened silk as this latter is frequently treated with lead salts, rendering it less durable. Samples of the genuine Snowden Iron-Dyed Silk will be cheerfully furnished free of charge, by writing to the Company in Philadelphia.

An Anti-Fat Which Produces Flesh.

Gentlemen:—There are a few considerations which, in my opinion, should not be ignored in using Phytoline. I was converted to the use of this valuable remedy several years ago by its successful results in my own case, and as the old saying goes, "one swears by the bridge that saves him." Since then my experience has been a varied one. I have not always achieved the same results in all my cases. Individual susceptibility to the action of the remedy differs. One case will respond promptly, the amount of absorbed and eliminated adipose being in some cases as high as a pound a day, in others a steady decrease of no more than a pound a week would be maintained. Then, again, some would not respond for four or five weeks consistent treatment, at the end of which time they would again lose weight slowly, as a rule, but sometimes quite rapidly. Whenever a patient fails to respond to treatment after a week, I examine the Phytoline carefully and see if there has been any change in its condition. It did not take me long to learn that it should not be put in uncolored glass bottles for the chemical rays of light decompose it and cause a precipitation of the active properties. This is always preceded by a change in the color of the medicine, the change being from the beautiful characteristic color of the poke-berries to a dark, cloudy, reddish brown. When this property develops the therapeutic activity of the drug declines in direct proportion to the degree of change. This is only a temporary disadvantage, as you have always been ready to replace the deteriorated for the fresh preparation. I had one case that was peculiar. It was Mrs. C., a lady about sixty-five years of age. She had been increasing in weight though not apparently getting any stronger. Her increase seemed to be entirely in the abdominal region and lower extremities. She had had rheumatism occasionally and was being troubled with a little difficulty of the heart. This was not a true case of obesity, but rather one of rheumatic heart complication. I knew that the anti-rheumatic properties of Phytoline could not meet this indication and I gave it to the patient with the injunction to take ten drops in water one-half hour before and one hour after each meal. She began to improve promptly. The swelling of the extremities subsided little by little, then the abdomen subsided in size, her heart's action became easier, her appetite improved and *she took on flesh*—not fat, but good solid muscle. She got well and has not been troubled since, although no one can expect a rheumatic heart to get well if there is any insufficiency of the valves.

Should you ever require a short report or two from my case record-book, just let me know and I will take pleasure in sending them to you. P. A. Lohman, M. D.

An Assimilable Form of Iodine.

Certain alkaloids act in a somewhat similar manner to the iodides and their action is, if anything, more permanent. They possess special power in stimulating the glandular system, both to secretion in the case of special glands and to absorption in a case of the lymphatics. The Henry Pharmacal Co., of Louisville, Ky., have combined the most efficient of these alkaloids in the formula of their tri-iodides. By combining these alkaloids with iodine in the form of hydriodic acid they have secured an assimilable form of iodine in the combination—the hydriodates of the vegetable alkaloids, colchicum decandrin and solanin. They claim that in the hydriodates of these valuable vegetable alkaloids they have a remedy which affords the specific alterative action of iodine without such disagreeable results as the iodinism sometimes produced by the ordinary iodides of the alkaline bases. It has been questioned whether their formula of the tri-iodides contains an appreciable quantity of iodine in an available form. Regarding this point they state that when the tri-iodides are given the characteristic action of the iodine upon, and its presence in the secretions, it is evidenced by chemical tests and the peculiar metallic taste produced by the internal administration of iodine. It is also shown in certain sensitive individuals by slightly marked eruption of acne, characteristic of the constitutional effect of iodine. This they state is in no instance as marked as when the iodide of potassium or sodium is administered yet is sufficiently distinct to prove the claims made that the preparation acts, in a large measure, through its containing iodine in an assimilable and active form. It is believed that, grain for grain, the hydriodates are more active in their effect upon the system, as far as the iodine is concerned, than are the ordinary preparations of iodine in the form of iodides.

Neuralgia, Hysteria, Asthma, Spermatorrhœa.

Neuralgia.—The varieties of neuralgia are almost as numerous as the nerves of the body. Wherever there is a nerve there may be a pain. In almost every form Neurosine will be found to give prompt relief and if persevered within the interim of the attack the splendid effects of the bromide of zinc and cannabis indica as permanent nerve tonics and other bromides as alternatives may be confidently expected.

Hysteria.—The manifestations of hysteria are so infinite in number that Tanner has well said, "Hysteria simulates almost every known disease." It so often exists without any pathological lesion and persists after cure of the lesion that the practitioner has no resource but the well-known antispasmodics, anodynes and nerve-tonics, which should only be taken at his direction, and which alone in many cases intervene to save the sufferer from the too common resort to opiates. Here Neurosine not only gives prompt relief but offers the best means of cure.

Asthma.—The bromides, belladonna and cannabis indica have been, and still are, the sheet anchors in this common and distressing malady. Trouseau and others after him was wont to push belladonna to the limit of toleration in asthma and thus he secured results equaled by no one of his time. A combination of these always efficient agents in Neurosine has in this disease given more satisfactory results than any other.

Spermatorrhœa.—(Self-abuse, Sexual Neurasthenia, etc.) The results in this class of cases, annoying alike to the physician and the patient, are well expressed by a physician eminent in his work who says, "Your Neurosine has given me at least satisfactory results which will warrant me in a further use of it."

Auto-Intoxication.

We are indebted to the bacteriologists for many things, but they have taught us nothing of more practical value than the lesson that a large number of our minor complaints and a thousand-and-one of our aches and pains, which make life miserable, come from Auto-Intoxication. The ever present germs in the alimentary tract manufacture their toxins and these are absorbed much to the distress, if not to the actual danger, of the individual. The good old fashioned theory that you must "keep the bowels open" if you wish to enjoy perfect health, thus finds a scientific explanation in these latter days. It is now simply a question of common sense: keep the alimentary canal free from the poisons of germ life. You cannot do this better than by using California Fig Syrup. It is pleasant to the palate, and prompt to give relief.

The Spitting Nuisance.

The boards of health in all parts of the country agree that consumption is an infectious and communicable disease, and is usually transmitted from the sick to the well by means of the dried and pulverized sputum floating as dust in the air. This being the case, it can, in a great measure, be restricted by the use of proper disinfectants. Platt 's Chlorides, one part to ten of water frequently sprinkled about the room, and the same disinfectant, one part to four of water, in the cuspidor or vessel receiving the poisonous and offensive expectorations, is especially applicable as it is a liquid without odor or color, and its frequent use is not attended with any annoying features

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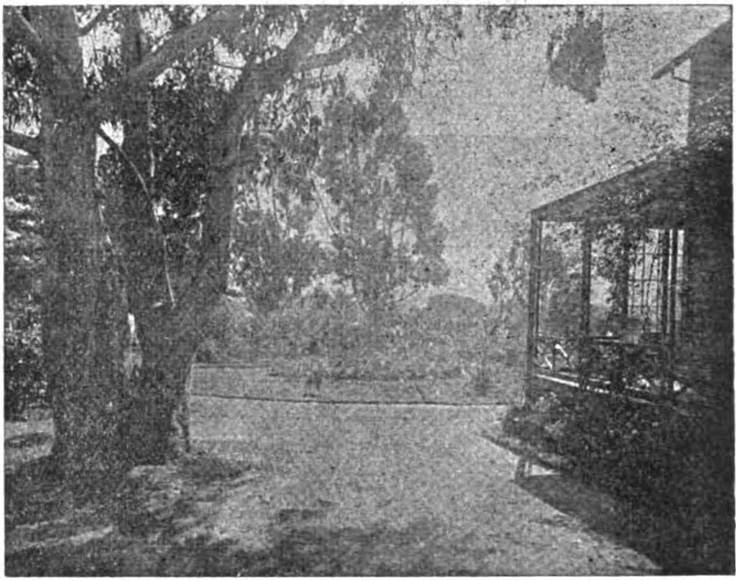

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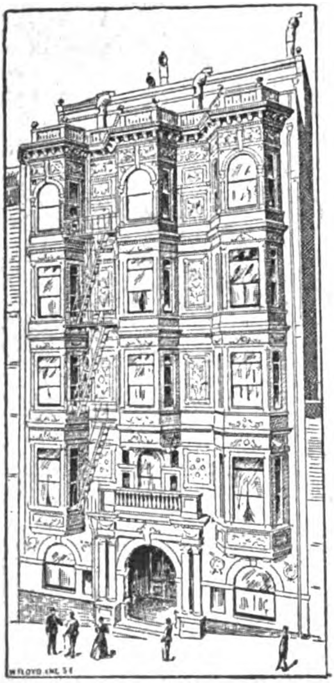

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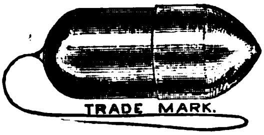

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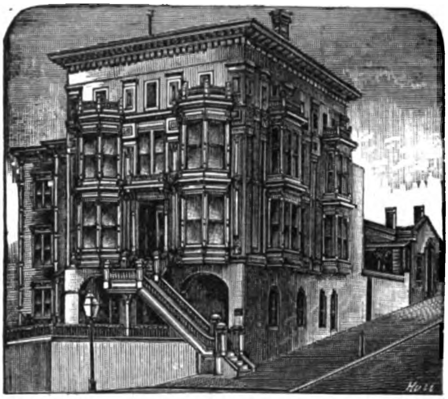

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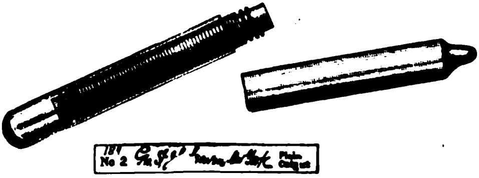

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Therapeutic Notes.

A Case of Cerebro-Spinal Meningitis Complicating Gonorrhœa Treated by Antikamnia.

The concluding remarks from the above article, by G. S. Leggatt, M. R. C. S. England, L. S. A., taken from the *Lancet* (London) are interesting from both therapeutic and physiological standpoints.

"*Remarks.*—1. This is a rare complication of gonorrhœa, and, as far as I can find, is not mentioned in any of the books which refer to the subject; but bearing in mind the similitude of structure between the meninges and the joints there seems no reason why they should not be occasionally attacked in a manner similar to the latter:

"2. Antikamnia is a remedy said to possess analgesic, antipyretic and anodyne properties. Its dose is three to ten grains, and it will be observed that the doses I gave were large ones; but the symptoms were extremely urgent, and it is interesting to note that there was no depression. During its exhibition the pulse improved in force, and the administration of the drug reduced the temperature to normal, and seemed in this respect to be greatly superior to that of phenacetin.

"3. As to the diagnosis it is difficult to know how the symptoms, which were of a most pronounced kind, could be accounted for on any other supposition than involvement of the fibrous textures of the spine and cranium. That the disease did not more definitely and more permanently attack the pia mater and arachnoid is probably due to the prompt administration of the antikamnia and salicylate combined, which seemed to me to prevent the optic neuritis and other more obvious and serious consequences of an established meningitis."

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	Tinct. belladonna	qtt xl
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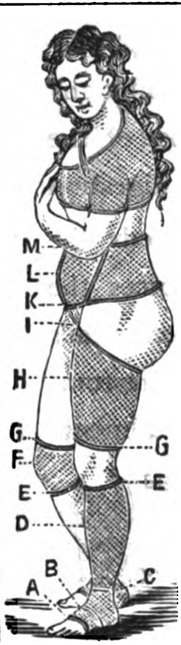

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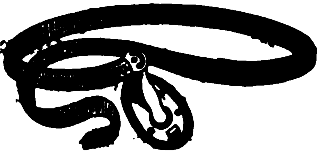

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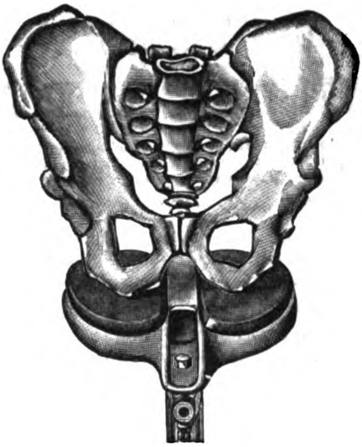

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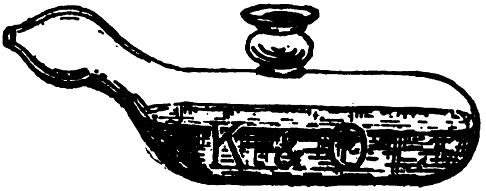

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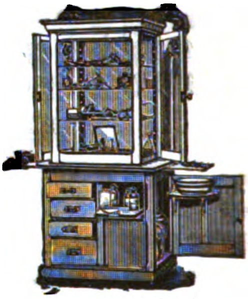

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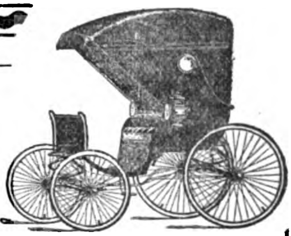

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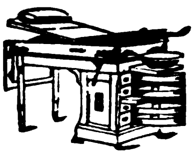

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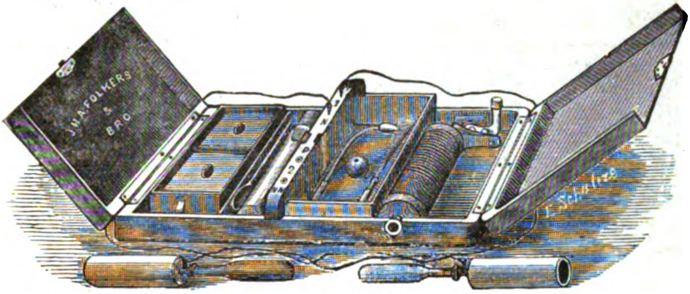
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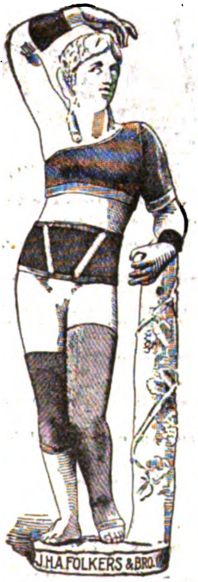
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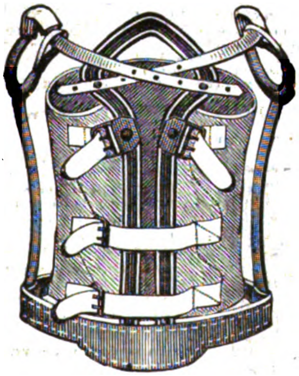

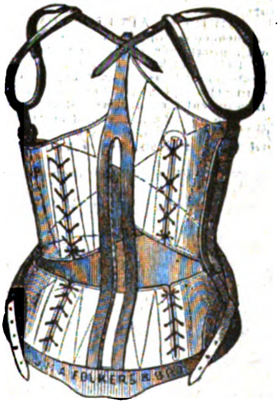

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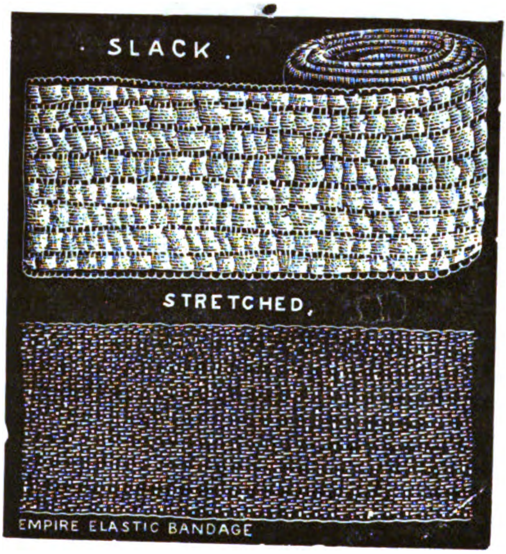

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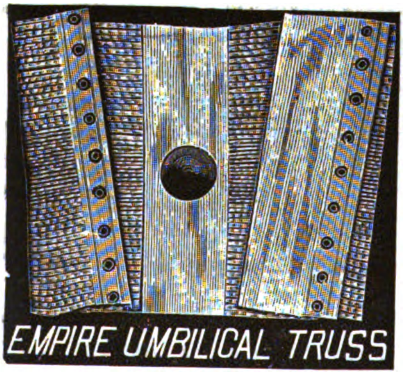

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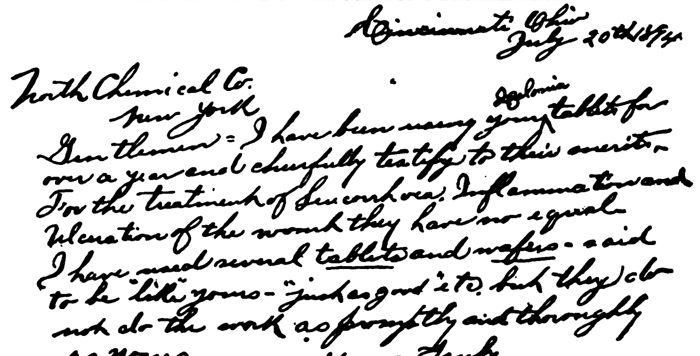
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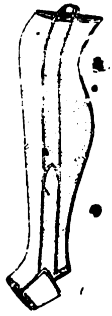

Fig. 2.

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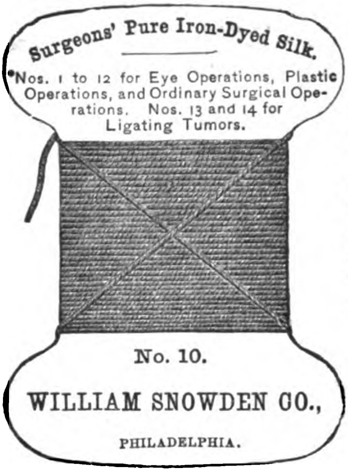
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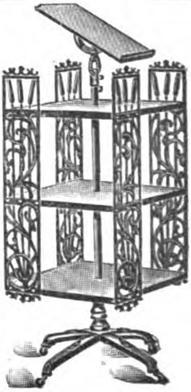

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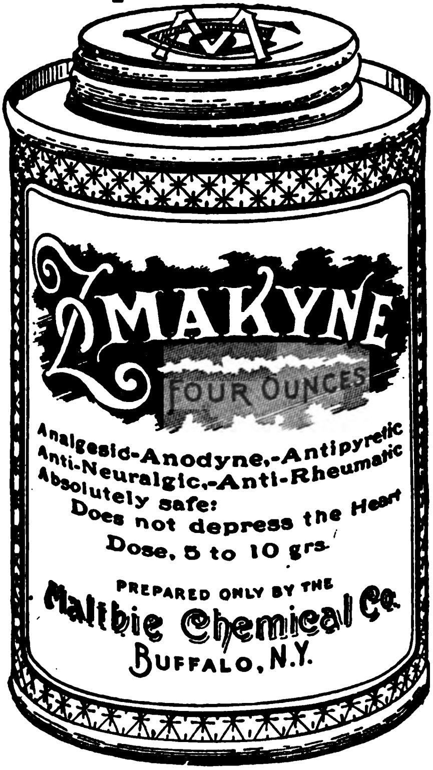

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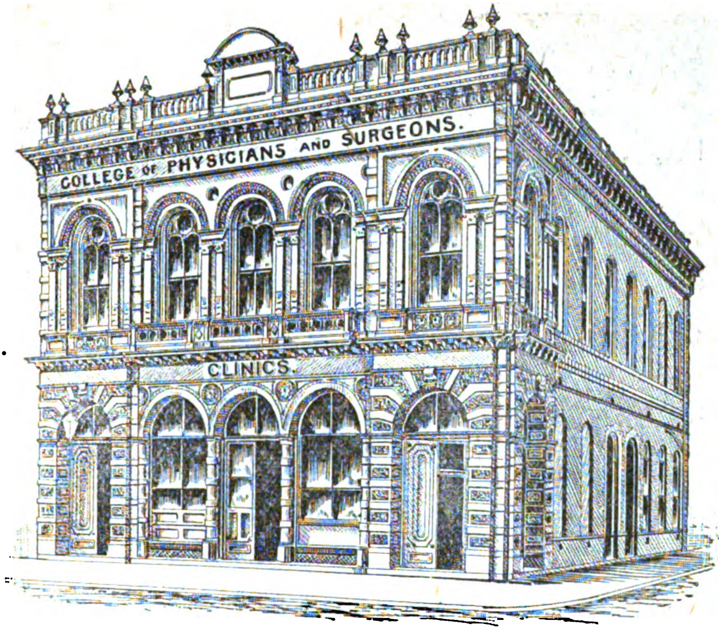
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Extract from page 153.

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